

FLIGHT

The
AIRCRAFT ENGINEER
AND AIRSHIPS

Founded in 1909

FIRST AERONAUTICAL WEEKLY IN THE WORLD

OFFICIAL ORGAN OF THE ROYAL AERO CLUB

No. 1392. Vol. XXVIII

AUGUST 29, 1935

Thursdays, Price 6d.
By Post, 7½d.

Editorial, Advertising and Publishing Offices: DORSET HOUSE, STAMFORD STREET, LONDON, S.E.1

Telegrams: Truditor, Sedist, London.

Telephone: Hop 3333 (50 lines).

HERTFORD ST.
COVENTRY.

Telegrams: Autocar, Coventry.
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SUBSCRIPTION
RATES:

Home and Canada: Year, £1 13 0.
Other Countries: Year, £1 15 0.

6 months, 16s. 6d. 3 months, 8s. 3d.
6 months, 17s. 6d. 3 months, 8s. 9d.

Meteorological Stations

THE directors of meteorological services in the Empire have been in conference in London before proceeding to an international conference of meteorologists at Warsaw. Naturally the plans for the supply of weather news along the Empire air routes was one of the chief subjects discussed. The conference realised that the regularity of the air services could not be maintained without reliable weather forecasts, and talked about the ideal of a chain of meteorological stations from London to Australia and to South Africa. These stations, it was assumed, would mostly be established by the countries of the Empire.

It may be questioned whether the development of these vital services is not too varied to be completely satisfactory. In this country the Meteorological Office is a branch of the Air Ministry, and rightly serves both the Royal Air Force and all civil flying, as well as providing forecasts for other interests such as shipping and agriculture.

Matters are different overseas, and conditions vary in different countries. In some the meteorological services are provided by the R.A.F. chiefly for the R.A.F., though the reports and forecasts are made available for pilots of civil aircraft. In other places the Government of the country is responsible for establishing and maintaining the services, and then their completeness depends more or less on the wealth of the country concerned, and its willingness to spend enough money on this form of activity. In India, for instance, during the late financial depression, the money spent on meteorological stations was severely cut down. It does not seem right that commercial aircraft of any nation should have to run risks of disaster because the country over which they are flying is foreign to them and is in financial straits. It would be more intolerable if British lines were to suffer from the temporary poverty of a British Empire Government.

In the United States some of the large air transport

companies provide their own meteorological services. The cost must be heavy, but this system insures that the companies can set up their own standards and the form of organisation which suits themselves. A scheme of this type offers the great advantage that it is controlled by the operators and does not depend on the circumstances of a local Government. It will be homogeneous throughout the whole of the route. In time, however, the question must arise whether the weather services ought not to be international.

Chesil Bank Range

SOME years ago a good deal of popular opposition was manifested to the establishment of a training ground for tanks at Lulworth Cove in Dorset.

The same county is now interested in the establishment of an air armament camp at Chesil Bank, near Weymouth. There has been a great deal of public interest taken in the matter, and the Air Ministry last week issued a lengthy reply to the objections raised by various parties. The objections to the location of the range were found to come under three headings. The first was that the range would destroy the local seine fishing industry, which gives employment to some ninety men from April to the end of September. This seems to have been the most weighty of all the objections. The Air Ministry conferred with fishery interests and made certain modifications to the layout of the range which, it is stated, will enable the fishermen to carry on with their work without interruption, except in a small area which will have to be closed while the air-to-ground firing targets are actually in use. The local fishermen are not satisfied, and one of their spokesmen is reported to have said, "They are taking away not only the men's fishing grounds, but that part of the beach where they land their fish, place their boats and nets, and their market place." The validity of this complaint cannot be judged without intimate local knowledge, but the Air Ministry statement that "this

strip of coast would involve less interference with fishing than any between Gravesend and Lyme Regis" seems to admit that a certain degree of hardship will be inflicted.

Possible interference with the amenities of Weymouth and district was the second problem, and there the Air Ministry has overcome the objections, with the result that the Weymouth Town Council has agreed not to oppose the range. The third objection came from ornithologists, who feared that the famous swannery at Abbotsbury would suffer, and that if the birds were driven away they would not return. The Air Ministry had first proposed to place the range two miles from the swannery, but they consented to move it two more miles farther away. Moreover, they seem to have proved their point that birds soon become used to firing and to aircraft, and will even nest among the targets. As mankind is kept at a distance, the ranges have become popular with the birds, and their numbers have increased at certain other firing ranges. The ornithologists will not be satisfied, and propose further protests. They will have to be disregarded.

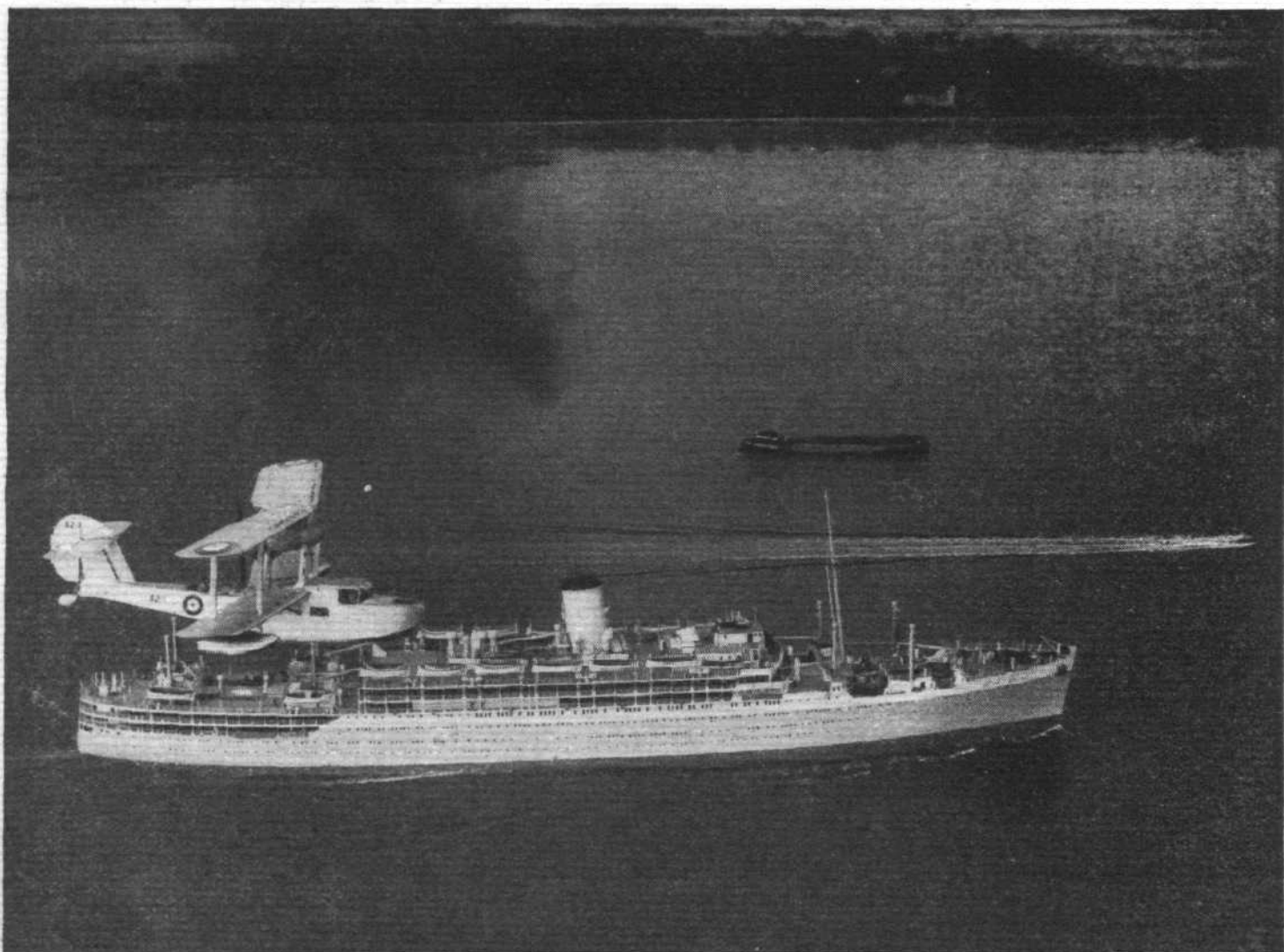
The modified injury to local fishing interests remains, and it does call for sympathy. Nevertheless, our fighting services must have practice ranges, and if they could not practise the safety of the country would be seriously jeopardised. The greater interests must outweigh the lesser.

Not Yet

THE daily Press became quite excited this week about "Decontrol of Civil Aviation," "Dropping the Red Flag," and so forth. Actually, all that had happened was that the Air Ministry had sent to B.A.C., Ltd., a letter intimating that the "Drone" may be flown in Great Britain and Northern Ireland, subject to limitations concerning passenger-carrying, flight over populous districts, and the like.

This was merely an action conforming to the Air Ministry policy of dealing with each ultra-light plane on its individual merits and did not constitute any general dispensation from the regulations at present in force. In *Flight* of August 1, 1935, were published details of the conditions under which the "Pou-du-Ciel" might be flown in this country, and last week further particulars were published concerning limited licences for these small machines and the regulations for pilots' licences.

So far no official pronouncement on the subject has been made. We may, however, hope that what is at the moment a subject for individual treatment "on its merits" may before long become a general principle. In the meantime, it is good that Mr. Robert Kronfeld has secured at least limited "freedom of the air" for his "Drone."



DOWN TO THE SEA. A Supermarine "Seagull V" with Bristol "Pegasus II M" engine, one of a batch for the Royal Australian Air Force, heads for the open water while the new Orient liner *Orion* leaves Southampton on her maiden voyage. In the British Fleet Air Arm, incidentally, the "Seagull" will be known as the "Walrus."

The Outlook

A Running Commentary on Air Topics

Charter Rates

JUST at present a steady grumbling is being heard in the offices of the independent charter firms. Imperial Airways are quoting charter rates for different machines in their fleet which, the charter people say, cannot possibly be approached by them without losing good money.

As most charter business is obtained and held by personal contact—once a customer always a customer, so to speak—the effects of rate-cutting are not immediately noticeable, but it seems to be obvious that a great deal of the new business will go to the firm quoting the lowest figures.

Imperial Airways, after all, have an enviable reputation for safety and reliability, and this fact, coupled with the low rates, might eventually give them a "corner" in the work, always supposing that they are in a position to do the business with their available fleet.

The charter people, naturally enough, feel that they are being unjustly treated, and that a subsidy, however indirect, should not be used to drive them out of the business.

A Moral Problem

ON the other hand, if one can forget a natural sympathy for the strugglers, Imperial Airways cannot altogether be blamed for wishing to keep its whole fleet in the air and for taking every opportunity of training pilots and radio operators.

A charter rate that would mean a loss to an independent firm would probably, taking the whole Imperial system into account, be considered as a fair one for a company whose overhead charges are spread over a large series of operations.

It is, in fact, the old story of the small shop competing with the big multiple store, though the simile falls down when it is remembered that the "multiple store" in this case is assisted by the taxpayers.

The problem is largely a moral one, complicated by the absolute necessity for encouraging both air travel in general and the individual operator who is helping to bring commercial aviation as a whole nearer to the day when it will "fly by itself."

Traffic Problems

LAST week, after a spell of perfect weather, Croydon had a taste of fog, or semi-fog, conditions—with the full summer services of all the air lines in operation. The control tower staff did its work manfully, as usual, but at least one of its number admits that the air in the region of the airport is really becoming desperately crowded for such conditions.

Probably the present system will be modified in due course to suit the tremendous increase of traffic since it was originally planned, and during the next few months the radio beacon will be brought into regular use.

Nevertheless, the radio beacon is not likely to be an unmixed blessing. It is not too early to remind pilots and operators that such a beacon is a blessing only when used in full conjunction with the normal radio services. Imagine, for instance, the dangers involved in thick weather if two pilots, bringing commercial machines in at the same time, elected to hang on to the beam signals and to hug the beam right on to the airport whilst disregarding any instructions from the control tower. It

would only be a matter of time before a collision occurred. A pilot without a radio operator might, after all, be tempted to make exclusive use of the beacon.

Layer Flying

IF now appears to be more than likely that Gatwick and Gravesend will be used as alternative airports when the weather conditions are really bad. Under these circumstances Croydon airport itself would be relieved to some extent, but the control officers would still have the same responsibility.

Both these aerodromes are, it is understood, to have experimental short-range beacons, but commercial pilots using them will still need to be given instructions and landing turns from Croydon if there are not to be the same risks of collision. Nothing, in fact, can take the place of straightforward wireless instructions, though the work involved in giving D/F bearings will automatically be reduced.

If, in poor weather conditions, all pilots or air line operators were given definite and final orders concerning the heights at which they must fly on certain services, then the control would need only to give the pilots their instructions for landing, and the chances of human error would be correspondingly reduced. One cannot help feeling that boredom for the passengers and hard blind flying work for the pilots are small prices to pay for the additional safety of such a plan. At present the control officers are never entirely certain that a machine is still at the height originally reported or in the area originally assigned.

An Event

AVIVID imagination is required to grasp completely the significance of the performance put up by the new Boeing bomber when it flew from Seattle to Dayton in nine hours.

A four-engined bomber, roughly equal in size to a "Hannibal," has covered twenty-three hundred miles at 252 m.p.h. For nine hours it kept up the "five minutes only" speed of a "Super Fury."

Tail winds it may have had. Military equipment, possibly, was removed. But, whatever the circumstances, the flight must be set down as one of the aeronautical achievements of the decade.

Supposedly unhonoured, and doubtless unsung, Mr. Les Tower, the Boeing test pilot, has been allowed to peep into the future of flying. And that, it will be agreed, is something.

International Hospitality

A GREAT deal of credit is due to the Cinque Ports Flying Club for its enterprise in arranging the International Flying Meeting at Lympne last weekend. This yearly event must be a considerable drain upon its resources, and many will agree that the club is, out of its own pocket, repaying a little of the debt we owe to foreign pilots and members of foreign aero clubs—a debt which by rights should be shouldered by all flying clubs and pilots in this country.

Whenever a British pilot flies abroad he receives lavish hospitality, and, while parties are arranged in England, we feel that the balance of debt still rests with us. Is it too much to hope that several other British flying clubs will assist at Lympne in next year's International Meeting?

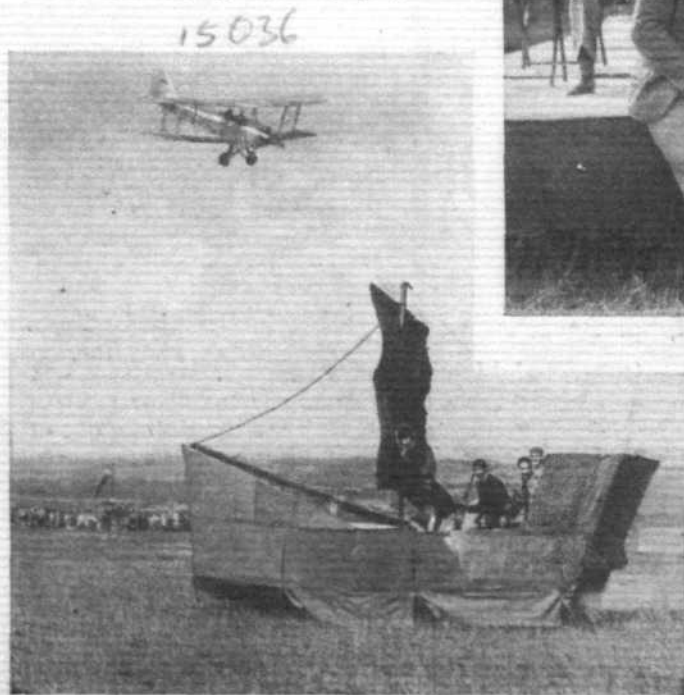


Mr. Hansez in the Caudron "Simoun" crossing the finishing line to win the Cinque Ports Wakefield Cup race. (Flight photograph.)

"A TRIUMPH over adverse weather," is the best description of the International Flying Meeting organised by the Cinque Ports Flying Club at Lympne aerodrome last week-end. It was, as usual, to have been a two-day meeting; but bad weather, low cloud, rain and murk that were impossible from a flying point of view started to roll over the Channel on Friday evening. A few intrepid pilots managed to get through that evening and a few more the following day—notably three German machines from Frankfurt led by Herr Entress—but no display could be held until the Sunday.

The Wakefield Cup race—a three-lap event of about fifty miles—was the *pièce de résistance* of the occasion, and, appropriately enough in many ways, it was won by one of the visiting foreign pilots, Mr Guy Hansez, a Belgian, flying a Caudron "Simoun" (Renault Six). He

Junketing! A lighter moment at Lympne. (Flight photograph.)



LYMPNE'S THIRD

Foreign Pilots Visit
Franco - Belg

started scratch and won at 177.5 m.p.h. Mr. Hansez, together with Mrs. Hansez (they are too well known in aviation circles and speak English too perfectly to be addressed as *M. et Mme.*) used to fly a "Fox Moth," and many visiting pilots in Belgium are indebted to them for their hospitality. Now, after trying other machines, they have turned to something more modern and fast.

We had the pleasure of flying round the course with Mr. Hansez, and were very favourably impressed with his machine. Cruising at 2,100 r.p.m., the A.S.I. registered 167 m.p.h.; level flight was possible at 58 m.p.h., and we touched down when landing at 38 m.p.h. Possibly there was a modicum of position error which would modify those readings, but they tally well with the maker's claims. The cabin seats four people in great comfort, with ample room for luggage. The Renault 6½-litre six-cylinder inverted engine drives a Ratier C.P. airscrew, and trailing-edge flaps are used on the wing. The outlook from



In this group are Mrs. Lindsay, Mrs. Davis, Mrs. W. E. Davis and Mrs. Forsyth. The visitors are Mrs. Hansez, Frau Lammertz and Herren Farnsteiner, Poulet, Steinbauer, Entress, Krugmann, Bischoff, Troll, Krügel and Lammertz.

(Flight photograph.)

the pilot's cockpit is excellent, both when landing and cruising. Most reassuring was the behaviour of the "Simoun" when stalled. There was nothing unduly sudden or vicious about it: just a flick of the ailerons—giving the pilot timely warning on the control column—and an immediate recovery. The air speed at this point was about 40 m.p.h., and the ample aileron control was sufficient to prevent any tendency to drop a wing. Rudder control also appeared

INTERNATIONAL

for the Cinque Ports Meeting:
 try in Wakefield Cup Race

to be retained right up to the last moment.

The cabin arrangement is worthy of study, as the four seats are staggered, placing each occupant slightly behind the one adjacent to him on the opposite side of the fuselage. This gives plenty of shoulder room, yet does not place the passengers so far apart that conversation necessitates leaning forward unduly. The cabin is reasonably quiet, what noise there is being mainly due to high-pitched whistling caused by the air stream through cracks and places such as the roof ventilator. The elimination of these noises is a matter for study, as it is all too prevalent on fast machines—even some of the ultra-modern, much-boosted American machines we have tried out recently.

After the weather had cleared up on Sunday morning a fairly representative number of foreign pilots was able to get over. Actually there were very many less than had been expected, but enough to give the meeting a thoroughly international flavour. Some thirty foreigners arrived, in twelve German machines, one Dutch, three Belgian and one Czech. These were a varied assortment, ranging in power from the 225 h.p. Lycoming-powered Stinson "Reliant" from Belgium, to the 36 h.p. "Praga Baby," described in *Flight* last week. In between these were German Bücker "Jungmanns," Focke-Wulf "Stieglitz," Fiesler "R.5," Klemms, and a Belgian Bulte "Sport."

Some of the German pilots were highly skilled and evidently of the type which the pseudo-civil "air force" is turning out in large numbers. In their eagerness to assist in the programme some of them took off on their own accord and gave impromptu displays. Paul Fürster and Willy Fritsch were two of the outstanding artists. The former, in the "Stieglitz," with the advantage of an engine fitted to run in the inverted position, put up an excellent show. His outside loops, inverted turns and bunts were worthy of any Air Force officer used to machines of higher power, although it is worth remembering that the "Stieglitz" was originally built for Herr Fiesler for aerobatic demonstrations before he started his own factory.

In a different category was Fraulein Festenrath, an eighteen-year-old German pilot with but a year's flying experience. She, by invitation, gave a display of which any man would have been proud. Her slow rolls, stalled turns and loops were as clean and smooth as any we have seen. Her machine was one of those snappy little Fiesler R.5 low-

Conversation piece: Mr. G. Hansez receiving the Wakefield Cup from the hands of Miss Fay Comp-ton and Mr. Noel Coward.
 (Flight photograph.)

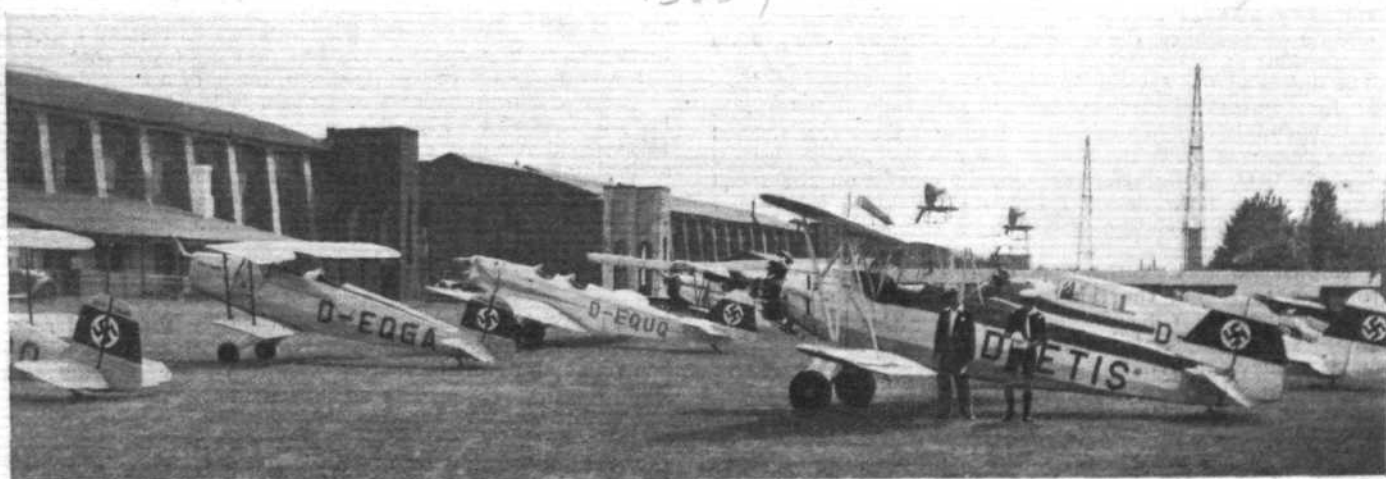


wing jobs with a Hirth engine, flaps and cantilever undercarriage. We wonder that some German Sir Alan Cobham has not got her in his circus; she would surely prove a great draw.

The programme itself had to be chopped about a good deal on account of Saturday's "wash-out." Machines which were demonstrated included an Airspeed "Envoy" (two Siddeley Lynx), a Monospar S.T.25 (two Pobjoy Niagara), B.A. "Eagle" (Gipsy Major), Miles "Falcon" (Gipsy Major), Percival "Gull" (Gipsy Six), B.A. "Swallow" (Pobjoy Cataract), and a B.A.C. "Drone" (Douglas). These were all standard machines which have been described very fully in the pages of *Flight*. The "Drone" was the latest production model with folding wings, tank in the fuselage, and larger ailerons giving improved control.

Mr. Brie, with a C.30 direct-controlled Autogiro, had a portion of the programme to himself. The weather was not very kind to him, as there was but little wind. However, he was able to show that the type is well able to land vertically without any forward run at all; while trundling the tail-wheel along the ground at a fast walking pace is mere child's play to a pilot like Mr. Brie. Probably we shall be hearing something about the direct-lift model before very long, and Autogiro demonstrations will take on a new significance.

Lympne members, under the direction of Mr. W. E. Davis, that hard-working brother of Brooklands' "Skipper," aided and abetted in their schemes by Mrs. Davis, always think out something original and amusing as part of the carefully planned programme. This year it was a "junk," made from old junk, which went junketing about the aerodrome! (The dictionary reads: "Junket—a gay entertainment."—Ed.) In a nefarious

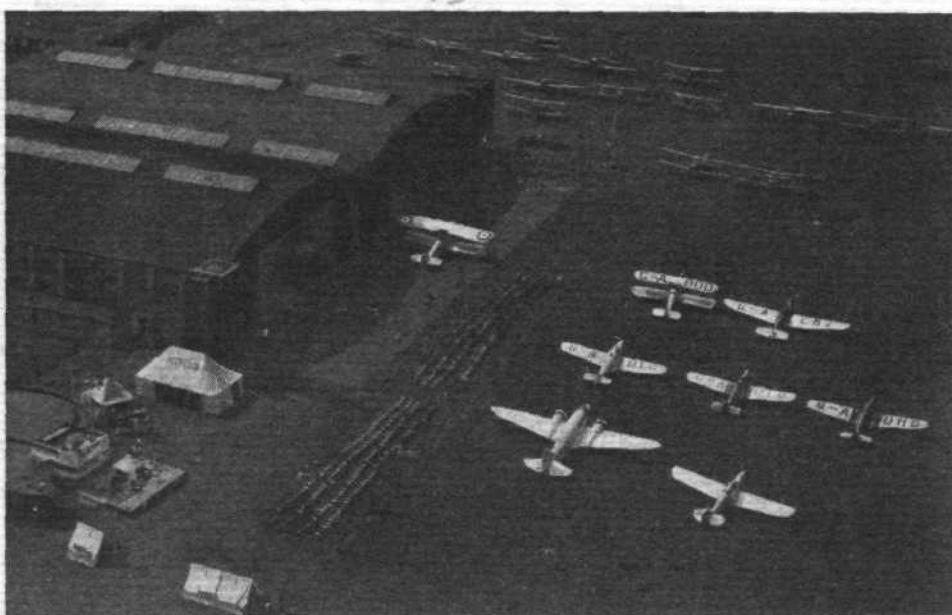


A group of the visiting German aeroplanes. On the right is the "Stieglitz" in which Herr Fürster aerobatted so efficiently.
 (Flight photograph.)

Before the party opens! An aerial view of the demonstration aircraft lined up before the hangars and the visiting German aircraft beyond. The empty seats were filled half-an-hour later. (Flight photograph.)

fashion the crew kidnapped an innocent fisherman. This sacrilege, however, soon brought its just reward when a "destroyer" and two "submarines" appeared smokily on the "horizon." They tried their damndest, but the former did very little destroying and the latter fired no torpedoes. The Club's own fleet air arm then took a hand in the proceedings, and after scoring many direct hits resolved the junketing junk to junk!

Other "gay entertainment" was provided when "Mrs. Gladys Potts," complete with "baybay," described her flight over the North Pole (listeners probably recognised Miss Florence Desmond's famous record). Her subsequent flying showed her to be a polished pilot—which is not surprising, for later on Mr. George Lowdell, as versatile as ever, shed his curls, became all proper and terribly "refained," and reverted to his own Wolseley-engined Hawker "Tomtit," on which he gave us as



pretty a show of aerobatic flying as anyone could hope to see. As he was not able to keep his engine running when inverted his repertoire was limited, but, nevertheless, the upward rolls and other spectacular manoeuvres were a treat to watch... he did *not* have his "marvellous baybay" with him during this part of his display.

Mr. C. M. C. Turner, in a "Professor" sailplane, was towed up and did a loop on the way down, and Mr. Chater did a prolonged flight with a passenger in a B.A.C. VII, also from a towed start. Both these pilots are members of the Channel Gliding Club, which functions at Lympne.

Mr. Fairlie showed us that the G.Q. parachute opens "nice and quickly" and lets the user down to earth in a comfortable and easy manner when he or she steps, hurriedly or unhurriedly, out of an aeroplane.

Sir Philip Sassoon came and welcomed the guests from abroad, and Miss Fay Compton, assisted by Mr. Noel Coward, presented the prizes.

CINQUE PORTS WAKEFIELD CUP RACE

Pilot	Rgd.	Aircraft	Start	Finish	Speed	Place
D. Bay ...	ACTP	Swallow (Catacraft) ...	M. S.	M. S.	m.p.h.	
G. Winn ...	ABKJ	Spartan (Gipsy II) ...	0 00	28 55	104	5
A. Clouston ...	ABMJ	Desoutter (Hermes II) ...	0 51	30 24	101½	10
L. Lipton ...	ABVW	Moth (Gipsy III) ...	1 38	28 15	113	2
N. Tangye ...	ADJR	Bristol (Falcon III) ...	2 23	28 53	113½	4
R. Duncanson ...	AAIG	Fighter ...	2 38	29 05	113½	6
A. Tweedie ...	ABME	Hobo (Catacraft) ...	5 36	28 35	130½	3
C. Napier ...	AAVT	Avian (Genet Mai.) ...	5 48	29 38	126	8
K. Waller ...	ADJO	Hendy 302 (Hermes IV) ...	6 41	29 21	132½	7
G. Hansez ...	French	Eagle II (Gipsy Mai.) ...	7 41	29 44	136	9
		Simoun (Renault Six) ...	10 19	27 12	177½	1

CORRESPONDENCE

The Editor does not hold himself responsible for the opinions expressed by correspondents. The names and addresses of the writers, not necessarily for publication, must in all cases accompany letters intended for publication in these columns.

BRITISH CIVIL AVIATION

From Sir Macpherson Robertson.

[3066] I wonder if you would permit me, on the eve of returning to Australia, to make an observation or two on what I believe to be one of the most important issues which Britain has to face to-day?

I refer to the development of her civil aviation, especially in relation to Imperial communications. Much depends on a sound long-distance policy in the training of personnel, the evolution of machines, the mapping of routes, and the ground organisation.

The object of the £15,000 International Centenary Air Race from London to Melbourne, which I had the honour to initiate, was to encourage British civil aviation, and the result showed British machines to be the best in the world. It was perhaps inevitable that public attention focused chiefly on the speed drama, but (and this is what I would stress) in the proper progress of civil aviation safety and comfort are equally important.

I emphasised this at the time of the big race. Without arrogating to myself the functions of guide and philosopher to British people, I feel that the British Government and companies like Imperial Airways are pursuing the right and sensible policy in avoiding a mere race for speed—at the expense of regularity, comfort and safety.

It seems meet to say this because of comparisons I have heard during my visit. One of the things that surprises overseas guests is the propensity of many people here to decry British achievements. I have heard criticisms of British civil aviation policy which, to say the least, appeared to be captious and uninformed—comparisons, for instance, with some of America's flying programmes which a moment's thought would

show to be fantastic for Britain, to say nothing of the vast sums involved in profitless subsidies.

The general soundness of Britain's civil aviation policy does not mean there is not room for detailed improvement in the services, but a lot depends on the public. For example, the carriage of all first-class mail by air would be accelerated if business houses would break away from the habit of delaying postages abroad to the end of the week. Why not use the mid-week machines, many of which, I hear, are available? This would spread out the transmissions and make easier the arrangement of regular services at possibly lower cost.

I would like to see less fuss, too, made of air accidents.

The real air-mindedness of Britain is the impression I take back to Australia. Five thousand landings at Croydon already this year! Aircraft companies of all complexions and sizes springing up (a danger here, by the way, which those interested in sound finance will guard against), and, last the real ascendancy of British machines, British organisation and British policy.

Grosvenor House, London.

TERRITORIAL SEARCHLIGHTS

[3067] With reference to your article on Territorial searchlight units, Territorial annual training must coincide with the annual holidays of the district to which the unit belongs; the War Office, therefore, has no option in the matter.

The Air Ministry, knowing this, should arrange to hold their exercises during the time the Territorials are in camp.

The disappointing results during the raids by the "Heyfords" are not so much due to obsolete apparatus as to the very limited opportunities offered by the Regular Services to the Territorials for practice.

B. DICKSON.
Edinburgh.

THE FOUR WINDS

ITEMS OF INTEREST FROM ALL QUARTERS

Proof of Interest

It is stated that the Air League has distributed 6,000 copies of M. Mignet's translated *Pou-du-Ciel* book in less than a month. A second edition is now being printed.

International

Mr. H. L. Farquhar, First Secretary of the British Legation in Mexico, left New York on Monday for a round-the-world flight, accompanied by Herr Fritz Bieler, a German war-time pilot.

Stellar Stimulus

A trophy and a one thousand dollar prize has been put up by Miss Ruth Chatterton, of film fame, for an air race across the American Continent. Entries so far received include Wallace Beery (doubtless with his new Bellanca), Paul Lukas, Ken Maynard and Hoot Gibson.

Ababa Black Sheep?

Part of the official war warning issued in Addis Ababa reads: "When enemy planes come to bomb and destroy Addis Ababa the church bells will ring and the cannon used for the daily time signal will be fired three times. Shut up your houses and run quickly into the country and hide, not together like sheep, but separately."



NASAL: The nose of America's largest and, we are told, fastest bomber, the Boeing 299. As recorded on p. 217, the machine has flown 2,300 miles in nine hours. The engines are Pratt and Whitney "E" type "Hornets," which yield 750 h.p. apiece, and the airscrews are of the Hamilton "constant speed" variety.

Vale

Mourning streamers were towed by aeroplanes over the Capitol building at Oklahoma City wherein lay the body of Wiley Post. At Beverley Hills two hundred airmen attended a funeral service for Will Rogers.

That Martin

At long last performance figures of the Martin bomber (two 750 h.p. "Cyclones") have been released. It does 215 m.p.h. at 10,000 ft., climbs to that height in 7 minutes, and its service ceiling is 25,000 ft.

Twenty-five Years Ago

From "Flight" of Aug. 27, 1910.

"I see that the War Office has again made a wavering move towards the establishment of an aeroplane corps. I understand the British officer is expected to provide his own aeroplane and learn to fly at his own expense."

An Earthbound "Kestrel"

Capt. G. E. T. Eyston and Flt.-Lt. C. S. Staniland are now in America with the Eyston Special racing car on which they intend to attack a number of records at the Salt Lake, Utah. The engine is an unsupercharged Rolls-Royce "Kestrel."

BRITISH PARTICIPANTS in last week's Tour of Holland—Mr. J. R. Ashwell-Cooke and Major H. Petre leaving the latter's "Puss Moth" in company with Mr. H. J. Tjarda, of the Amsterdam Aero Club. As related on page 224, another English competitor, Mr. Presland, tied for first place with a Polish pilot.

Forthcoming Events

Club Secretaries and others are invited to send particulars of important fixtures for inclusion in the list.

Aug. 24—Sept. 1. National Gliding Competition, Sutton Bank.

Aug. 24-25. Cinque Ports Club. International Flying Meeting and Wakefield Cup Race.

Aug. 24-30. Raduno del Littorio, Rome. Reale Aero Club d'Italia.

Sept. 6-7. King's Cup Air Race. Start and Finish: Hatfield.

Sept. 14. Cinque Ports Club. Folkestone Aero Trophy Race.

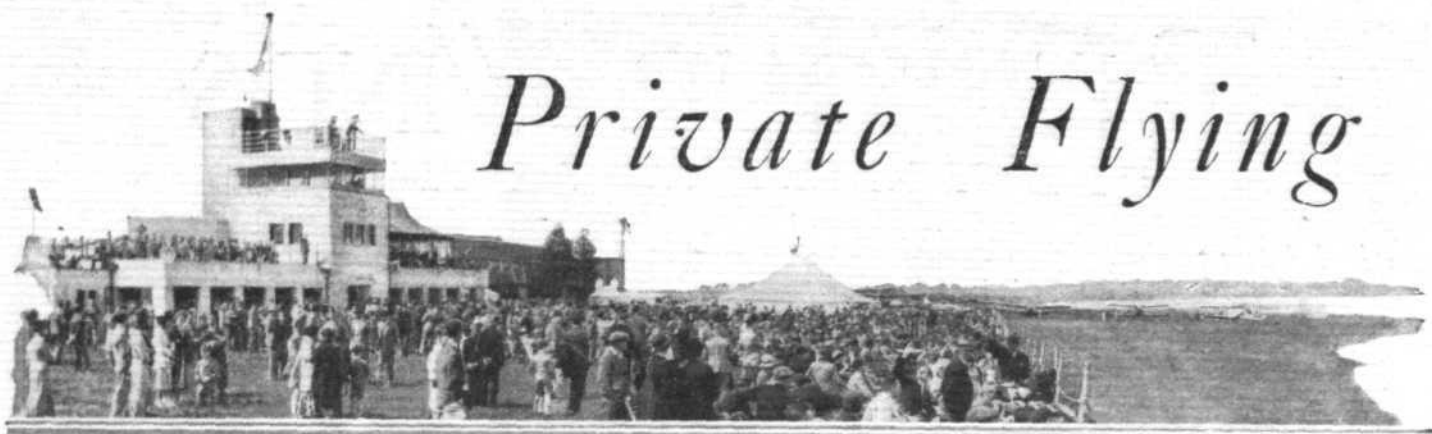
Sept. 15. Gordon Bennett Balloon Race, Warsaw.

Sept. 21. London-Cardiff Race. Cardiff Aeroplane Club.

Sept. 28. Round the Isle of Wight Air Race and Portsmouth Air Trophy.

Oct. 12-28. International Aircraft Exhibition, Milan.





Private Flying

Topics of the Day

Practice Makes Perfect

MOST amateur pilots—and certainly those who were taught in the earlier days of the club movement—make a habit of treating all normal approaches to aerodromes as forced-landing approaches. In other words, they cut things as fine as possible within reason, and feel in honour bound to keep the throttle closed from the very moment of starting the glide.

The good old trick of approaching a little high and of carefully slipping off the surplus height has a great deal to recommend it. When a forced landing is necessary the tactics are so automatic that the pilot can use the actively thinking part of his brain in studying the lie of the land and in choosing the best line of approach. Meanwhile, his sub-conscious brain is placing the machine in the best possible position.

Sub-conscious Obstinacy

NEVERTHELESS, the habit is not without its dangers and the principle can be followed too closely. Once upon a time a club member I knew quite well caught his undercarriage on the top of a boundary fence and turned the machine over on its back. He was more or less unhurt, but the machine was a write-off, and his instructor was righteously incensed by the fact that his pupil had more than half a mile of aerodrome still "in stock."

He told me afterwards that, though doubtful whether he could clear the fence, he was so determined that the watchers on the ground should not hear him "rumbling" that he neglected to use his engine until the very last second. At that point the engine momentarily choked as he suddenly opened the throttle.

Certainly the desire to make a good forced-landing approach can be so firmly ingrained that one may sometimes take risks that are only justifiable when the engine really is dead and when the selected field is extremely small.

I often wonder whether the novice, during the period when he is preparing to be passed off on forced landings, is told sufficiently often that, while overshooting is a calamity, undershooting is a catastrophe. To roll into a hedge is one thing, but to smite the hedge at gliding speed is quite another.

Cutting Things Too Fine

A YEAR or more ago, while demonstrating my capacity for pulling off forced landings in difficult conditions with a brave instructor, I stalled the machine on to the ground only just beyond the hedge of a small field. As a forced landing it was perfect and the instructor was very complimentary, but I knew perfectly well that I had crossed the hedge much more slowly than I intended. In fact, the hold-off and landing were made in one unchecked, fast and quite instinctive backward movement of the stick.

Since that time I have tried to make sure that the boundaries of small aerodromes are crossed at an adequate air

speed. After all, even if the speed is a little too high one can always, in an emergency, "lose" some of it by a short application of full rudder with a little opposite aileron, straightening out again at the moment of holding-off.

Such tactics, when practised at an aerodrome, may appear to the casual onlooker to be merely exhibitionist, but the ability to make flat "turns" without conscious thought will always be useful until generous and fool-proof air brakes are universal fittings. Then, one hopes, we will be able to aim the machine at a point a little beyond the boundary and to adjust the gliding speed by means of a "brake" lever. Some of the recent American designs are very closely approximating to the ideal.

Back to the Beginning

INCIDENTALLY, while practising approaches a fortnight ago, I discovered to my veiled surprise that my landings were almost as imperfect as they could have been.

Most pilots have their "bad" days, but this was particularly bad. Two out of five efforts were what can only be described as "two landings with only one arrival"—and bursts of engine were used to negotiate each second landing. The other three were poor. I crept away, making a mental decision to spend half an hour or more at the first available opportunity in landing practice, but on the next occasion my efforts were of the thistledown variety.

Good from Evil

THERE is, of course, no harm at all in making a point of practising approaches and landings of all kinds at occasional intervals. Even if you imagine that your performance is always perfect, the practice is good for you.

A year or two ago I demanded, at a certain club, the right to fly their pet cabin machine, which was used for charter work and piloted by experienced members only. No dual instruction was possible therein, and the instructor, before letting me loose on this strange craft, ordered me to spend a complete half-hour practising landings off the world's worst approaches.

I tried coming in at 90 m.p.h. and holding off at that speed; I tried coming in with a shade of throttle, and so on. The experience gained of delicate holding-off and really accurate backward movements of the stick while keeping the wheels within an inch or two of the grass, has since stood me in good stead.

Many new pilots who have been taught to start "checking" at ten feet and to make their landings after a certain pattern from start to finish go to pieces when their holding-off speed is a little higher than usual. The machine balloons, and the novice is so completely lost that he can only push the throttle forward and go round again for another attempt.

Hence the fact that pilots who, originally, were slow in learning to land are often a great deal more competent to deal with difficult situations resulting from bad landings or from landings on rough ground.

INDICATOR.

FROM THE CLUBS

Events and Activity at the Clubs and Schools

LIVERPOOL

Bad visibility has kept last week's flying time down to 74 hr. 50 min.

CASTLE BROMWICH

Dual and solo flying totalled 47 hr. 20 min. last week, 10 hr. being solo. Messrs. T. A. Stephenson and B. Heath became members in the flying category, and Mr. R. Quann passed his "A" licence tests.

NORTHAMPTONSHIRE

During last week flying was hindered by bad weather. On Saturday a formation had been arranged to fly down to Lympne for the International Meeting, but this had to turn back owing to poor visibility. Two new associate members for the week are Messrs. S. A. Cope and H. W. Poultney.

BENGAL

Dual and solo flying totalled 44 hr. 25 min. and 30 hr. 55 min. respectively, during July. Mr. L. K. Mahanty passed the tests for his "A" licence, and Mr. A. Ghose requalified for his "A" licence. Mr. P. K. Basu is taking instruction, and Mr. Rabi Roy has made his first solo.

BROOKLANDS

The South Coast Flying Club, at Brighton, will start operations on September 1. Mr. Smallman, who is going down as Secretary, will be delighted to welcome visitors and show them round this, the third offshoot of Brooklands.

Six new members have joined the Brooklands Club during the week, all to learn to fly. They are Miss D. Kay and Messrs. Ward, Pitman, Martindale, Tyson and Winterbottom. Mr. Heath accomplished his first solo, and Messrs. Deo and Selby their height tests. Mr. R. Saunders has returned from Le Zoute and has resumed flying.

YORKSHIRE

Flying time for the past month totalled 197½ hr. A Short "Scion" was acquired in place of one of the "Puss Moths" and will be used for joy-riding and taxi work.

The "Pou-du-Ciel" was demonstrated at Yeadon on August 21, but the machine, unfortunately, sustained damage in a forced landing shortly after taking off. A large crowd which had gathered went joy-riding in United Airways' "Argosy."

New members of the Club are J. E. Hilton, H. V. Mahoney, A. Douglas, J. C. Webster, and A. Garland. First solos were made by J. Davy and P. M. Wood, the latter being an Aviation Group member.

Licence tests were passed by Dr. H. A. Kidd, Capt. R. B. Scott, and Mr. S. G. Beaumont.

HERTS AND ESSEX

A special committee is busy with arrangements for the "Aero-fête" to be held on September 7. On that day, during the afternoon, the aerodrome will be closed for flying operations during the period covered by the final of the King's Cup Race.

The competition for the Sheldermine Challenge Cup will be held on Sunday, September 1, and will take the form of a map reading contest, compasses being whitewashed.

Mr. N. N. Browning has become an instructor, and Messrs. H. G. Wynne (Holland), C. C. M. Logan, W. L. Edwards, H. Sandam, Miss E. M. Stewart, Miss J. M. Edwards, and D. R. Dimmock have become members. Mr. McLaren has completed tests for his "A" licence.

Last week's flying times were 46 hr. dual, and 70 hr. solo.

READING

Eight "Hawks" of various breeds took part in the Brooklands "Dawn Patrol" two Sundays ago. Later in the day the Club held an informal garden party. A small flying programme was carried through. The "arrival" prize was won by Mr. R. C. Cox from Hanworth, and Mr. R. Morris of Brooklands, who stopped only 12 ft. from the mark, won the landing competition. Flt. Lt. R. Milne rounded off the programme with an aerobatic display.

Last week Mr. Douglas Cooper went solo, and Mr. Norris and Mr. Vishvanth became pupils.

Mr. Van has been practising on the demonstrator before taking delivery of his special long-range "Hawk Major." He intends to make an endurance test with full load, after which he is going to try to fly to Canada.

Members of the International Friendship League spent an interesting time at Reading aerodrome on Wednesday last week, when they visited the aeroplane works of Phillips & Powis, Ltd., at the invitation of the managing director, Mr. C. O. Powis. After tea in the clubhouse they were all given flights by Mrs. Battye and the club's instructor.

KARACHI

In the course of his speech at the Annual General Meeting, the President stated that the total flying time this year (2,742 hr.) exceeded last year's figure by some 350 hr.

SCOTTISH FLYING CLUB

The returns for June show a total of 290 hr. 25 min. flying.

The open and *ab initio* landing competitions were held on Sunday, August 25, and the Mobiloil Cup Race will take place on Sunday, September 15.

LONDON AEROPLANE CLUB

The weather has been rather difficult in the afternoons owing to the heat and peculiar winds which have sprung up just after lunch.

New members are Messrs. C. H. Thomas, N. M. Gibbins, and W. J. Riddell. Flying time was 113 hr. 5 min.

HANWORTH

New private owners include Mr. Tutt ("Moth") and Mr. T. Eliasson ("Avian"). Mr. Eliasson is shortly flying back to Sweden. Miss Fewtrell and Messrs. Jarman and Woodle have become members.

Flying times totalled 53 hr. 30 min.

HULL

M. Robineau demonstrated the "Pou-du-Ciel" at Hedon last Friday. It has been suggested that during the winter season the Club should build a "Pou" of its own.

Club nights will be held at 8.30 p.m. on Saturdays, September 14 and October 5.

CIVIL AVIATION SERVICE CORPS

Twelve members of the C.A.S.C. attended Fen Ditton aerodrome last Sunday with the intention of putting in some useful flying, but, owing to a shortage of instructors, they were only able to fly for twenty minutes in all. Solo members had the unpleasant experience of seeing machines lying idle. During the week three new members were elected to the probationary status.

CAMBRIDGE

Nine "A" licences have been gained by Marshall members in the last three weeks, the latest of these being those of Mr. Boughton-Leigh and Mr. Nicholson. Club machines flew 58 hr. last week.

New members include Mr. John Ewing and Mr. Garthwaite, who is the prospective Conservative candidate for the Isle of Ely, and is taking up flying to enable him to get about the constituency the more easily.

RANGOON

Fifty-six hours' flying were recorded during July. Messrs. M. G. Pradhan and C. G. Shaw completed tests for Indian "A" licences.

The School held an "At Home" on Sunday, July 21, which was attended by H.E. The Governor (Acting) of Burma, Sir T. Couper, T.C.S.I., I.C.S., Capt. Patterson, from the office of the Director of Civil Aviation, Simla, was flown around Rangoon and made what was, presumably, the final survey for the new aerodrome.

REDHILL

During the recent bad weather a number of machines used the aerodrome to avoid the control zone. The Air Ministry's control zone ground sign, incidentally, is now in operation.

Mr. H. Dalrymple-White passed his "A" licence tests, and Mr. C. G. K. Browne made his first solo.

On Friday, August 30, M. Mignet will demonstrate his "Pou-du-Ciel" at 5.30 p.m.

Last week's flying time was 76 hr.

SOUTH STAFFS

On Thursday, August 22, the President of the Club, the Rt. Hon. the Earl of Harrowby, Lord Lieutenant of Staffordshire, accompanied by the Countess of Harrowby, Lord Sandon and other members of his family, paid an official visit to the aerodrome. He was received by the Mayor (Councillor Mrs. Cresswell), the Chairman of the Aerodrome Management Committee (Councillor J. Cliff Tibbits) and Town Clerk (Mr. H. Lee). On arrival at the aerodrome, the Earl and Countess were welcomed by the Vice President of the Club, Sir William J. Talbot, J.P., Mr. S. Norman Jones, and Mr. Norman Parkes. After inspecting the hangars and machines, the Earl and his party were entertained to tea in the Clubhouse.

A number of visitors arrived by air during the afternoon. The Club's "Avian" was kept busy, and a demonstration of gliding was given by the Eagle Gliding Club of Birmingham. In a speech the Earl later expressed his pride in holding the position of President.

Private Flying

An Airport for Wolverhampton

THE Wolverhampton Corporation propose to borrow £55,000 for the preparation of an aerodrome site at Pendeford Hall Estate, just outside the city. At a recent meeting of the council there were no objections to the proposal. The site is situated twenty miles from the new Birmingham airport site at Elmdon. A local flying club is in formation and hangars will be let to civilian pilots.

India's Training Centre

THE Board of Governors of the Indian Aeronautical Training Centre, whose names will shortly be announced, will include Mr. Allan T. Eadon, who is now relinquishing his post of Deputy Director of Civil Aviation in order to take up his new duties as principal, and Lord Ronaldshay, from whom the idea originated. All the remaining members will be Indians, and the four transport companies in India will be represented.

A Russian Excursion

MR. W. LINDSAY EVERARD, M.P., of Ratcliffe Hall, Leicestershire, who for some years has indulged in an annual air trip to "foreign parts," left Heston last Friday for Russia. His D.H. "Dragon" is being piloted by Mr. Dougal MacPherson, winner of the Cairo Cup for Mr. Everard two years ago, and Capt. Peter Reiss.

His first stop was Rotterdam, and the itinerary will include Leningrad, Moscow, and other industrial centres of the Soviet. His machine has made many long trips into Europe and Africa, but this will be the first time it has taken Mr. Everard to Russia.

British Aircraft Win Tour of Holland

SOME seventy machines, including entrants from Britain, America, France, Germany, Holland, Belgium, Hungary, Austria and Poland, took part in last week's Tour of Holland, organised by the Royal Aero Club of the Netherlands.

The course this year was from Amsterdam via Haamstede, Twenthe, Eelde, the Friesian Islands, de Kooy and Rotterdam. An escort for the tour was provided by the Dutch Royal Air Force, and the Dutch Royal Naval Air Service and K.L.M. Airlines were represented by a Douglas and a Fokker F.12.

The competition itself took the form of a navigation and map-reading trial, in which competitors were required to locate a series of ground markings laid out along the course, and to indicate them on special maps provided for the purpose. Two pilots, Mr. B. de Skórzewski (Poland) and Mr. R. Presland (England) tied for first place, each with a total of 75 out of a possible 80 points. The former pilot was placed first after lots had been drawn in accordance with the rules. Mr. Skórzewski was flying a De Havilland "Leopard Moth" and Mr. Presland a "Puss Moth."

New Italian Regulations

THOSE private owners and others who are contemplating a visit to Italy by air should notice that the regulations for entry and exit have been stiffened.

The "T.K.2" at Martlesham

THE "T.K.2" monoplane, described in *Flight* last week, has gone to Martlesham for its official trials. The tare weight has now been ascertained to be 1,078 lb., and, as the permissible gross weight has been increased to 1,600 lb., the disposable load becomes 522 lb.

Two Instructional Appointments

MR. GEORGE LOWDELL, test pilot of Wolseley Motors, has been appointed chief instructor at the new Air Ministry civil training school to be established in October by Reid and Sigrist at Desford aerodrome, Leicestershire.

Incidentally, Flt. Lt. Marcus Hutchinson, who is a member of the Leicestershire Aero Club, has now been appointed a flying instructor at that club. He is at present attached to the R.A.F. special reserve at Hucknall.

Dunstable's Summer Camp

A DEMAND from a large number of people for continued gliding facilities caused the summer camp at Dunstable to be kept going by the London Gliding Club until August 17. Even with this extension a satisfactory wind did not arise for soaring, with the result that some twelve people, who were ready to take their "C" licence tests, could not do so.

During the period of the camp one of the most commented-upon matters was the excellent catering of Mrs. Turvey. That hard-working lady managed, with her helpers and only a four-burner oil stove, to provide no fewer than 3,500 hot meals during the fortnight—a feat of which any professional caterer would be proud.

At Sutton Bank

AFTER two disappointing opening days, during which the wind blew from quite a hopeless direction, Monday brought a south-west wind of no great strength which, nevertheless, made soaring possible at the British Gliding Association's annual meeting at Sutton Bank.

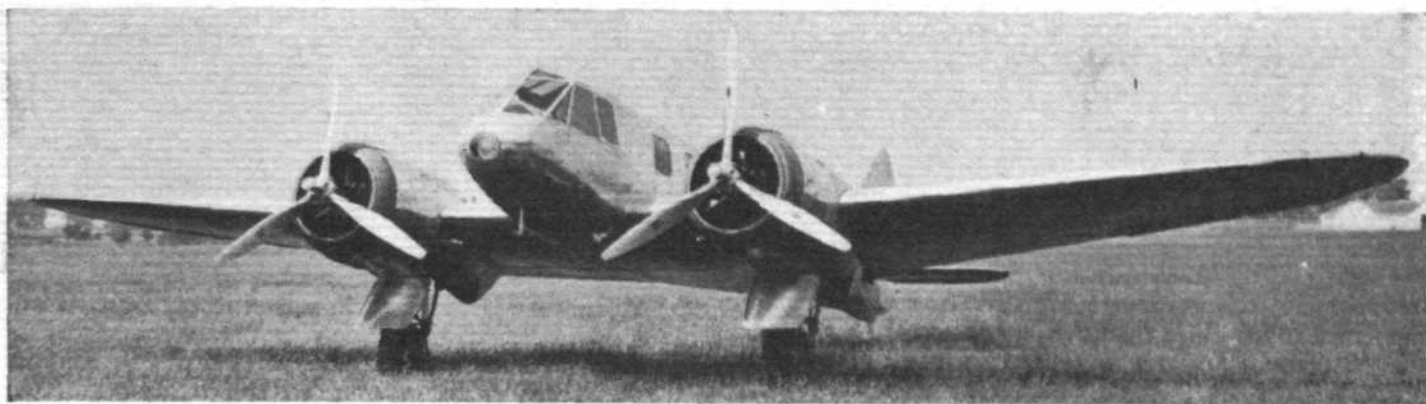
The day's competition was one for a flight to Kirby Moor-side, but after half an hour's circling by Mr. C. Nicholson, of the London Gliding Club, in his "Rhonbussard," and by Mr. A. L. Slater in his "Golden Wren," it was clear that nobody would be able to move far from the site. Mr. Nicholson, however, reached 1,500ft. Afterwards Mr. P. A. Wills went up in Flt. Lt. Buxton's "Hjordis" without gaining much height.

Another Vidal-Inspired Model

CALLED the "Arrowplane" by its designer, Waldo Waterman, an interesting tailless aeroplane has recently been tested at Los Angeles before officials of the American Department of Commerce. The top speed claimed is 114 m.p.h., landing speed 40 m.p.h., landing run 30ft., and the machine is said to be practically impossible to spin. The engine, used as a pusher, is a 4-cylinder inverted 95 h.p. Menasco. The "Arrowplane" has been evolved from the designer's previous low-wing tailless machine called the "Whatsit." The swept-back, arrow-shaped wings carry rudders at their tips, and the ailerons also serve as elevators.



SAFETY FIRST: The more important features of the tailless Waterman "Arrowplane" can be seen in this photograph. Some details appear in the paragraph above.



A development order has been placed with the Bristol Company, for military versions of their type 140 twin-engined civil monoplane. The engines in the prototype are 605 h.p. "Mercury VIS."

FOR THE NEW SQUADRONS

Part III: The Conclusion of a Review of the Aircraft Intended for or Being Issued to the R.A.F., this Article Deals with Medium and Heavy Bombers and Four Types of Flying Boat

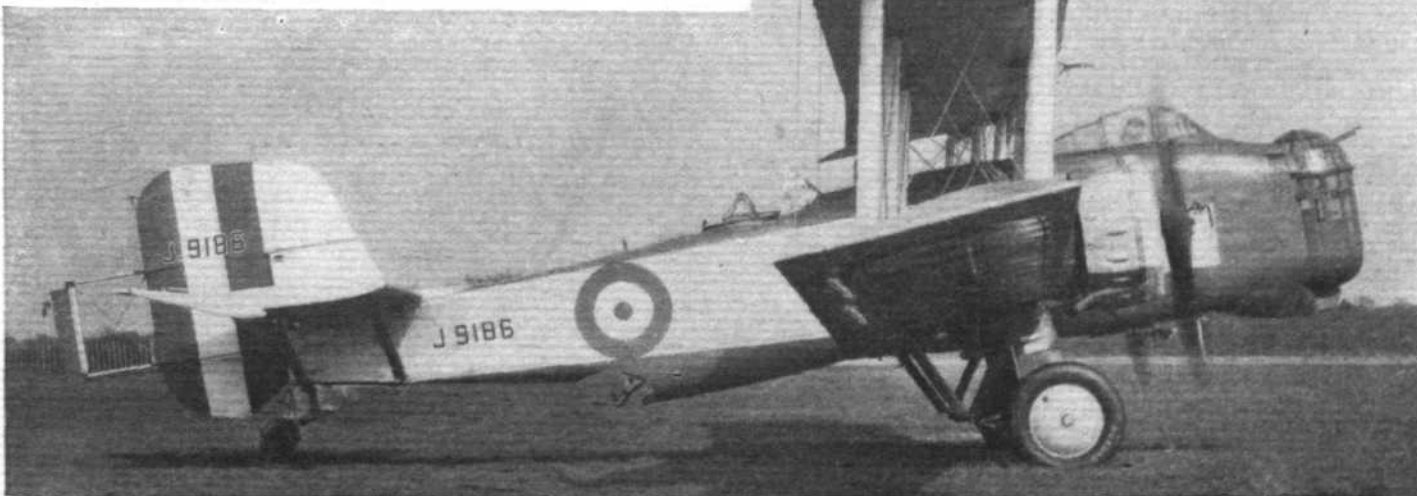
AT the moment of writing, the Royal Air Force has only one medium bomber squadron in service, but the next two years will see, in all probability, the advent of many such units. Our sole medium bomber squadron, No. 101, is now receiving the Boulton Paul "Overstrand" in place of the same company's "Sidestrand." Armed with the latter machine the squadron has done much to reveal the effectiveness of the medium bomber or, as the type was known until a few months ago, the twin-engined day bomber.

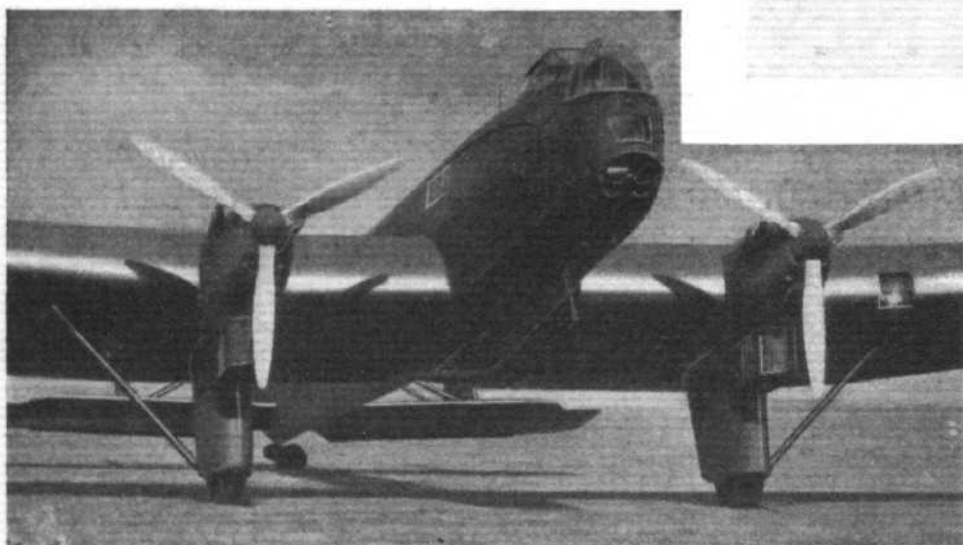
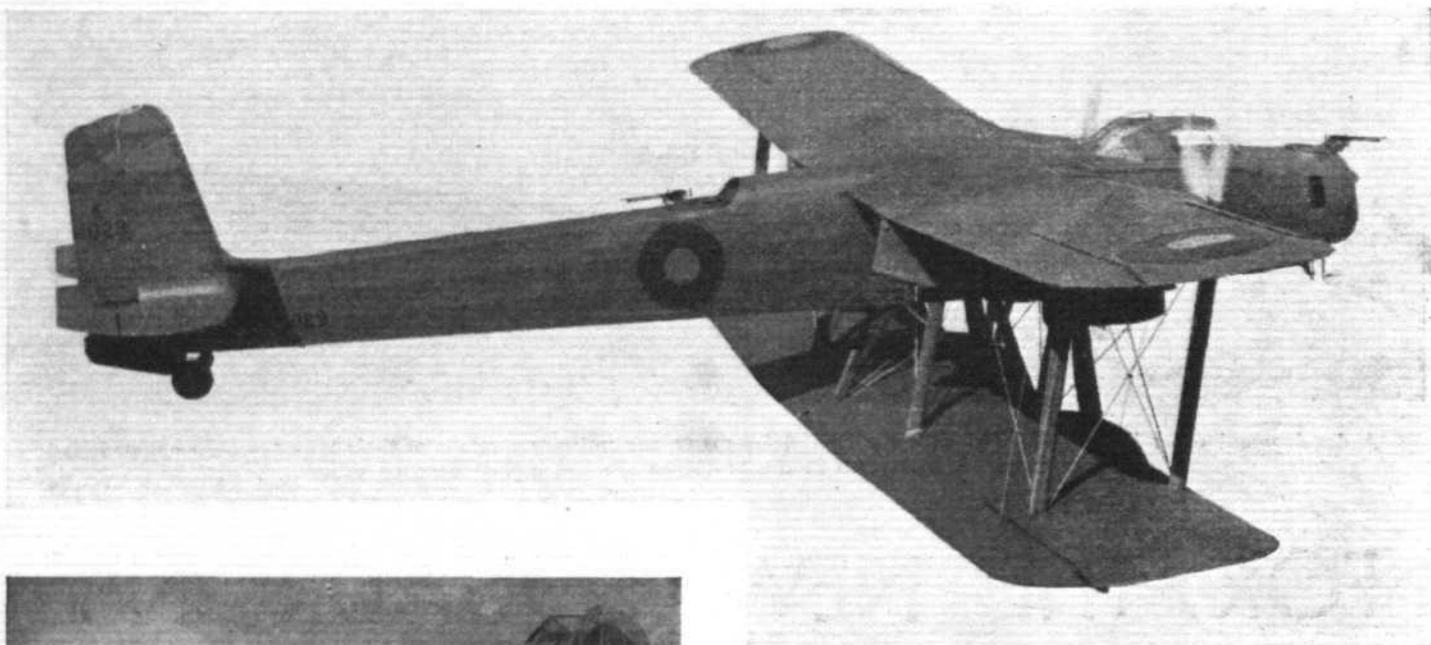
In general layout the "Overstrand" (which, incidentally, may be employed by day or night) differs but little from its forerunner. The distinguishing features are, briefly: a general stiffening up of the structure to allow the carriage of increased loads and to deal with a higher performance; the installation of a mechanically-operated gun turret in the nose; a strengthened undercarriage which incorporates wheel brakes; improved tailplane and elevators—the latter servo-operated; improved protection for

pilot and crew and the provision of cockpit heating and, finally, the installation of two 590 h.p. Bristol "Pegasus IIM" medium supercharged radials in place of the "Jupiters."

The majority of the following figures are published for the first time. Tare and gross weights of the "Overstrand" are respectively 7,936 lb. and 12,000 lb., the all up weight being roughly 2,000 lb. more than that of the "Sidestrand." At the rated altitude of the engines (6,500 ft.) the maximum speed is 153 m.p.h.; the rate of climb at 4,500 ft. is 1,100 ft./min., and at 15,000 ft. (at which height the rate of climb is 520 ft./min.) the speed is 144 m.p.h. The service ceiling is 22,500 ft. Noteworthy qualities, apart from the machine's exceptional manoeuvrability, are the low stalling speed (56 m.p.h.)

No. 101 (Bomber) Squadron is now receiving the "Overstrand" in place of the "Sidestrand." This medium bomber, with two "Pegasus IIM" engines, does 152 m.p.h.





Handley Page "Heyfords" will appear in service with 600 h.p. "Kestrels," enclosed pilots' cockpits and other refinements. The speed should be in the neighbourhood of 150 m.p.h. (*Flight* photograph.)

In its production form the Fairey "Hendon" will have 600 h.p. "Kestrels," a cupola for the front gunner, and an enclosed pilot's cockpit.

There is a possibility that sleeve valve engines will be installed.

The Handley Page "Heyford" and Fairey "Hendon" are, so far as is known, the only heavy

and the short take-off run (200 yd.). With normal fuel load the range is 550 miles. So far no official announcement has been made with regard to the equipment of additional units with "Overstrands." There is no doubt, however, that, if the type is issued to more squadrons, a later mark of "Pegasus"—in all probability the "Pegasus X"—will be fitted, with a consequent gain in performance.

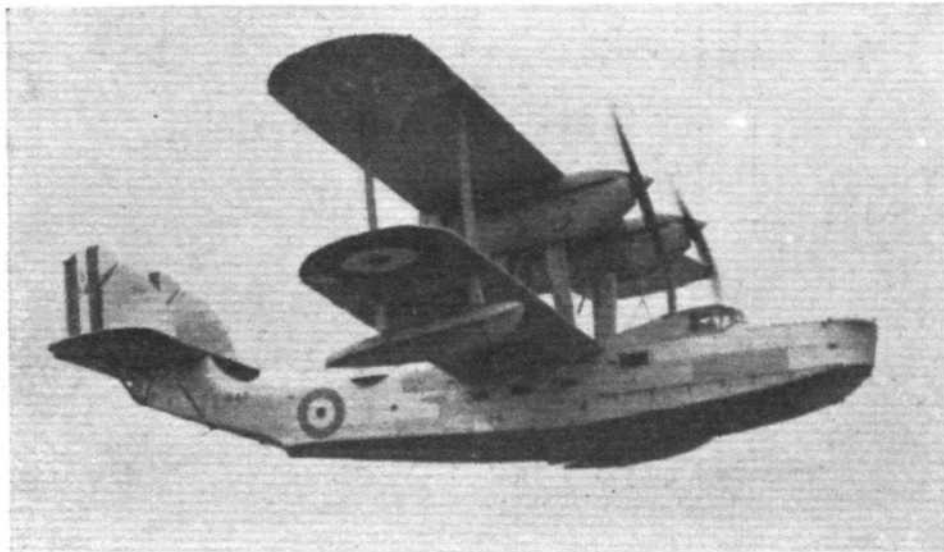
There are indications that a military version of the Bristol 140 twin-engined civil monoplane, which was illustrated in *Flight* last week, is destined to become our next standard medium bomber, although to call it a "medium" type is mere conjecture, as the bomb load will, in all probability, be smaller than that carried by the "Overstrand." On the other hand, it should be considerably greater than that of the "Hart." A speed in the neighbourhood of 270 m.p.h. may be expected, and it is understood that two guns will be mounted. The range should be longer than that of the light bomber as we know it to-day. By the time the Bristol is in production a later type of "Mercury" than the VIS, which is the mark fitted to the prototype machine, will doubtless be available.

bombing types to have been ordered in quantities, although high-performance twin-engined and four-engined types are known to be under development.

Future "Heyfords" will be Mark II's fitted with 600/640 h.p. fully-supercharged "Kestrels," either of the V or VI type—the two marks being identical except for propeller gear ratio. The machines will embody totally-enclosed cockpits, allowing increased comfort and improved vision. The manufacturers claim that not only is the pilot allowed to work without the encumbrance of a flying suit, goggles, etc., but, owing to the special design of the windscreen, he can put his head outside the window and look vertically downward and horizontally forward without hindrance from the airstream. The top rear gunner in the Mark II "Heyford" is sheltered by fairing extension carried aft from the top plane; this eliminates

The Vickers "Valentia" is an improved "Victoria" with "low duty" "Pegasus" engines. The performance is considerably improved.





Supermarine "Scapas" are already in service in the Mediterranean. The engines are moderately supercharged "Kestrels" of 525 h.p.

the adjustable windscreen fitted to the earlier "Heyford" and reduces drag. Speeds between 130 m.p.h. and 140 m.p.h. are obtained with the Service "Heyfords." The increased power and general "cleaning up" will doubtless result in a considerably higher performance. Range, in addition to speed and climb, should benefit.

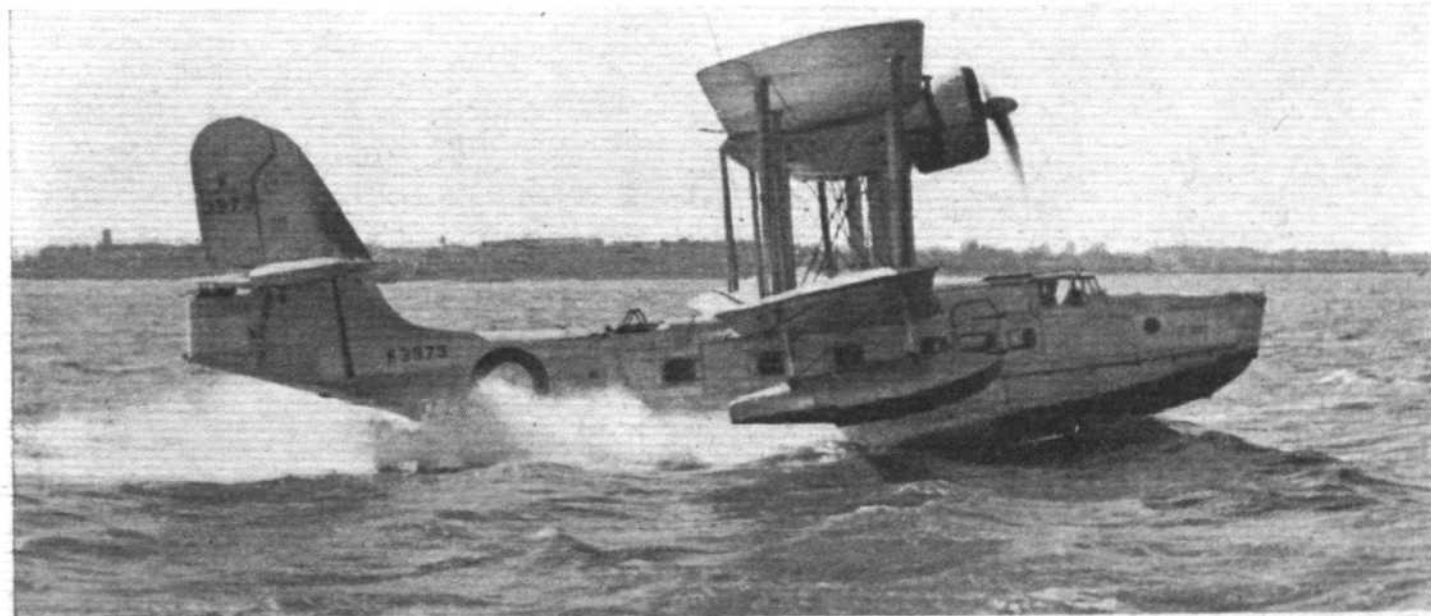
It should not be long before the first production "Hendon" leaves the Fairey works. Of late the type has received certain interesting modifications. The front gunner (who is also the bomb aimer) is provided with a transparent cupola to facilitate the accurate use of the Lewis gun, and has improved bomb sight installation. The prototype "Hendon" was fitted with two 525 h.p. "Kestrel III" engines, but in its production form 600 h.p. fully supercharged "Kestrels" are specified. These will drive three-bladed Fairey metal airscrews.

A competition is being held at present with a view to selecting a new type of bomber-transport. Meanwhile the "Lion" engines in the "Victorias" which have given yeoman service in the East, are being replaced by "Pegasus III" radials. Various other modifications are being made, and, in the new type, there is provision for the carriage of a spare engine under the bottom inner port plane. A speed of 113.5 is obtained, the gross weight being 19,583 lb. and the range 647 miles.

A large proportion of the flying boat squadrons of the R.A.F. is now being re-equipped, and doubtless we shall

see a number of new units formed under the expansion scheme. Four types of flying boats are on order. They are products of the Supermarine, Short and Saunders-Roe companies. The Supermarine "Stranraer," described in *Flight* of August 1 this year, is the latest flying boat to be accepted for service use. It has a very high performance for a machine of its type, and will be fitted, in its production form, with two 820 h.p. "Pegasus X" medium supercharged radials. With these power plants a speed of over 150 m.p.h. may be expected. A second Supermarine boat, the "Scapa," is already being issued to squadrons. This is a smaller machine than the "Stranraer," but has a high performance, albeit rather lower than that of the "Stranraer" in its latest form. On the power of two "Kestrel III" medium supercharged engines of 525 h.p. apiece, the "Scapa" is capable of 143 m.p.h. at 2,000 ft., and will do 135 m.p.h. at 10,000 ft., to which height it climbs in 18 min. 11 sec. The service ceiling is 14,950 ft. and the range 1,025 miles. Tare and gross weights are 10,309 lb. and 15,540 lb. respectively, the maximum "overload" weight being 16,240 lb.

A very sturdy and roomy boat is the Saro "London," which, it is believed, will eventually equip at least three squadrons. Seaworthiness and the comfort of the crew were primary considerations in the design, entailing a small sacrifice in performance. Not that the "London" is a sluggard. Her top speed at 6,560 ft. is 135.4 m.p.h. The whole design has been planned with open-sea operation, even in "overload" condition, in view. An examination of the structure will reveal what ingenuity must be exercised by the designer of such a boat. The whole structure of the wings is in stainless steel. To avoid risk of damage by heavy seas, ailerons are fitted only to the top planes. The outer sections of the lower planes, being most liable to damage, are joined on at the base of the interplane struts and can be removed without deranging the remainder of the structure.

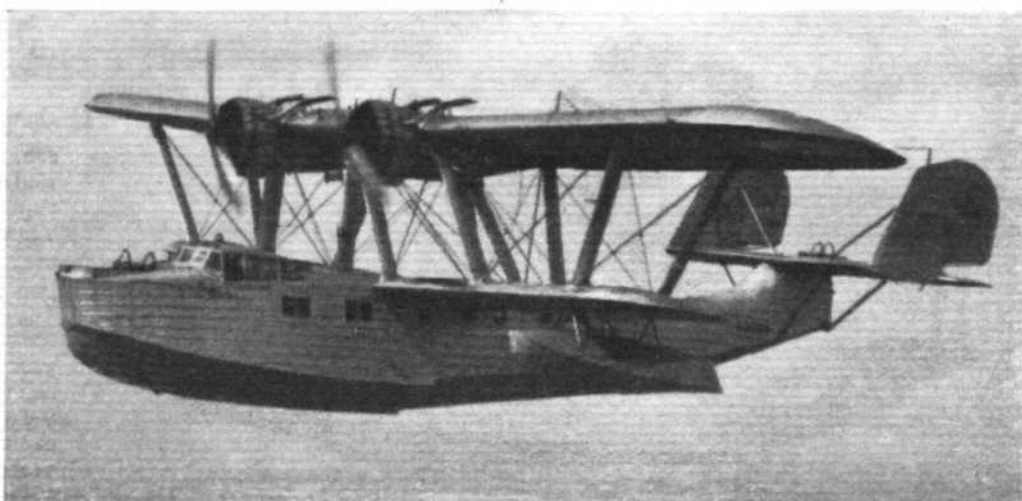


"Pegasus X" engines of 820 h.p. will power the Supermarine "Stranraer." This flying boat has an exceptionally fine all-round performance. (*Flight* photograph.)

There will be at least three squadrons of Saro "Londons." These are very sturdy boats with two 690 h.p. "Pegasus III's."

Power is supplied by a pair of Bristol "Pegasus III" medium supercharged radials operating on fuel of 87 octane number. These units are rated at 690 h.p. and are equipped with polygonal Townend rings embodying exhaust collectors; a similar system is employed on the "Overstrand." When extreme range is desirable, "overload" tanks are carried on the deck of the hull.

In the bows of the boat is a door giving a forward and downward view for the bomb aimer, who operates his sights and releases from this position. Marine gear and a Lewis gun on a Scarff mounting are also provided in the nose compartment. The pilots' cockpit is enclosed, and is equipped with side-by-side seats and detachable dual controls with a gangway between. Aft of the cockpit is the officers' ward room (that is how the makers describe it), on the port side of which is a table for the navigator. Bunks for two officers are situated on the starboard side. Behind a bulkhead are positions for the engineer and wireless operator. Then follow bunks for the crew, a galley and a work bench. Behind the galley is a midship gun position, and still further aft are a dinghy, maintenance platforms and spare airscrew. In the extreme tail is a third Lewis gun.



Empty, the "London" weighs 11,100 lb., and in "maximum overload" condition the weight is only 200 lb. less than double that figure. The take-off occupies 18 seconds. Cruising at 115 m.p.h. the normal range is 1,105 miles.

The Short "Singapore III" is in quantity production, and several boats of the type have already been issued. This machine, it may be recalled (it was fully described in *Flight* of June 1, 1933), is fitted with four medium supercharged "Kestrels," and is capable of 145 m.p.h.

Future training equipment will, it appears, take the form of D.H. "Tiger Moths," Avro "Tutors" and "Prefects" (these latter machines may be regarded as "Tutors" specially equipped for navigational training), and "Hart" trainers.



The Short "Singapore III" powered with four 525 h.p. "Kestrels" has a speed of 145 m.p.h. Boats of this type are now going into service with squadrons overseas. (*Flight* photograph.)

"CRUISING-RATED" PRATT AND WHITNEYS

ON its latest commercial engine list the Pratt and Whitney Aircraft Division of the United Aircraft Manufacturing Corporation has instituted a new policy for the rating of its aero engines.

Henceforth all Pratt and Whitney engines will be indicated by their "cruising rating" instead of by their maximum power, which, of course, is available only for limited periods. This change has been brought about because the cruising performance of a machine, the basis of air line schedules, is, of course, dependent upon the engines' cruising power.

Because of the high wing-loading of modern transport machines and the demand for high airscrew thrust for rapid acceleration greatly increased take-off power is being pro-

vided in all models. Every engine on the current P. and W. commercial production list ("Wasp Junior," "Wasp," "Hornet," "Twin Wasp Junior" and "Twin Wasp") have full automatic valve-gear lubrication and automatic mixture and power control.

The following are the outputs delivered by the present Pratt and Whitney engines; the figures in parentheses indicate respectively cruising power, maximum power for continuous emergency operation, and take-off power: "Wasp Junior" (300, 400, 450), "Wasp" (400, 550, 600), "Hornet" (525, 750, 800), "Twin Wasp Junior" (525, 750, 825), "Twin Wasp" (600, 850, 950). The two last-named engines are not available for export.

COMMERCIAL AVIATION

— AIRLINES — AIRPORTS —



THE LATEST IN FAIRCHILDS. This is the new Fairchild "45" five-seater monoplane, which might be regarded as America's reply to our Airspeed "Courier." The engine is one of the new 225 h.p. Jacobs radials and gives a top speed of 160 m.p.h. With flaps down—they are of the split type—the landing speed is 48 m.p.h.

THE WEEK AT CROYDON

The Deluge : Q.B.I. Again : A Film Invasion : Speeding the Parting Passenger : Theory versus Practice

THE principal excitement of last week was caused by the sudden change of weather. On Wednesday an ingenious young journalist of my acquaintance extracted the information from the Croydon Meteorological Office that from Salisbury Plain in the West, Edinburgh in the North, Poland in the East, and Nice in the South, there was not a cloud in the sky.

Just as he had calculated that this was an area of one million square miles two fat, fleecy clouds sailed solemnly over the control tower. This was perhaps the work of rival "Met." officials at Biggin Hill, using smoke bombs.

Then, on Thursday night, when we were gasping with the drought, the rain came. Most of it, for our particular district, went straight into the Customs bonded warehouse, which was guaranteed by the Air Ministry to be flood-proof. Anyway, there was such a depth of water that it appears necessary for Customs clearance clerks of short stature and no great aquatic ability to be given free swimming lessons by the Air Ministry, which *must* have a department for such matters.

Certain goods were damaged—notably some grain samples, which swelled to four times their normal size and weight. The company concerned, it is understood, made no extra charge either on bulk or weight. It will be interesting to see if the authorities offer compensation for these damaged goods with the same alacrity that they display when someone damages any Air Ministry property.

Saturday was notable for the fact that Q.B.I. conditions were in force all day—a thing which has not happened for very many months. It made no difference, however, to the regularity of the services.

On Friday a film company invaded the airport to take shots of the hero, in a drama called "S.O.S.," disemplaning from *Scylla* and being greeted—within the sacred Customs area where such reunions are strictly forbidden in real life—by the heroine in a car driven by a chauffeur in a queer mauve uniform. Certain imitation passengers were used because real ones are not so lifelike. The real steward took part and was tipped in lordly manner by the hero. Afterwards, the steward returned the trifle, possibly because it was a "property" gratuity of shiny cardboard. The pilot also took part to the extent of smiling and saluting. This is all very well if the

film turns out to be a good advertisement for commercial flying.

Companies not involved in these amusing affairs should surely be warned. One company director was told to "stop that engine" when he approached with his car and when a pilot, on his lawful occasions, started up prior to a normal business flight a total stranger rushed across at him flapping his arms like an aerodynamically unsound crow trying to take off. We are all ready to help within reason, but we do not like being flapped at by strange young men.

Great efforts are being made by all concerned to expedite inward passengers through customs and passport formalities. The new Air Ministry system of allowing none but passenger buses to park in the immediate vicinity of passenger exits allows a great saving of time. There is talk, too, of doing away with some of the shrubberies.

Pooled Transport

The latest scheme afoot is that Imperials, Luft Hansa and Sabena must draw up their cars at one door and Air France with K.L.M. at another. This should be eminently satisfactory, as the first three all use Imperial cars and go to Airways Terminus in London, whereas the Dutch and French companies use the same transport cars and both use Horseferry House, Lambeth Bridge, as their London terminal. These two companies have recently adopted a plan of pooling cars when services from France and Holland coincide. One car thus leaves as soon as about half the passengers are ready and the other one awaits those who pass more slowly.

Provincial Airways report very heavy bookings to the West of England, the annual holiday-maker now preferring in many cases to fly to the Cornish Riviera.

A good story from the Imperial Airways Eastern section concerns a first officer who worked out the machine's position somewhat near Khartoum with a bubble sextant. The Captain glanced over his figures and then remarked to him gravely: "Mr. —, take off your hat." "Why?" asked the puzzled first officer. "Because," replied his senior officer, pointing to the paper in his hand, "we are now, according to your calculations, in the middle of St. Paul's Cathedral."

A. VIATOR.

Commercial Aviation

Improvements at Darwin

SINCE the Qantas machines are continually being bogged there, Darwin aerodrome is to have a new runway measuring 900ft. by 100ft. £10,000 will be spent on the programme of improvement.

Air Traffic in Holland

THE steady increase of international air traffic, despite recent setbacks, is illustrated by last month's passenger figures for Schiphol, Amsterdam, and for Waalhaven, Rotterdam.

In July Schiphol had 5,447 outward passengers and 5,810 inward air travellers, showing an increase of 28 per cent. over July, 1934, for both categories. Waalhaven had 1,493 outward passengers and 1,440 inwards. This indicated a 44 per cent. increase on the corresponding month of the previous year for outgoing travellers and 72 per cent. increase for inward air travellers.

A "Falcon" for New Zealand

SQON. LDR. MCGREGOR, who, since flying so well in the England-Australia race, has become a director of Union Airways of New Zealand, has recently placed an order for a Miles "Falcon" ("Gipsy" VI engine). This machine, which is identical with that entered by Viscountess Wakefield in the King's Cup, is for use by the company.

Incidentally, Standard Telephones and Cables are to instal their ATR 4 radio sets in the three D.H. 86s, ordered by this company and in the two D.H. 89s ordered by Cook Strait Airways, its associate. These five machines are to be delivered in October and the Palmerston-Dunedin and the Wellington-Blenheim-Nelson services should be in full swing before the end of the year.

An Effective Charter Trip

THE fact that a successful charter trip can have useful and more or less unlooked-for results was shown recently when a satisfied customer bought a "Leopard Moth" through Wrightways. Mr. J. W. Duggan had taken him to Biarritz, and he enjoyed the trip so much that he promptly bought his own machine, and was thereafter flown around France and Spain by Mr. Duggan and another pilot who was engaged when the former felt that it was time to relieve Mr. Turner on the early morning newspaper work.

One of Wrightways' two D.H. "Dragons" is being fitted with the Radio Transmission Equipment homing device for work in areas where no D/F bearings are available from ground stations. The other "Dragon" is being fitted with a Sperry artificial horizon and directional gyro. Messrs. Duggan and Turner continue to fly the newspapers over to Paris and the "Dragons" are carrying 500-600 lb. every morning. Mr. Turner, incidentally, has sold his "Gipsy Six Gull" to Brian Allen Aviation, who have now got two "Gulls," and he is looking for a fast machine to replace it.

The service department is busy just now on engine repair work. Some six of various types were in the shops last week.

British Continental Plans

OWING to the fact that work on the surface of the aerodrome at Lille is still going on, the British Continental Airways' direct service from Croydon is not likely to start before the beginning of the third week in September. It will be remembered that Swissair's London-Zurich service was originally planned to make a halt at Lille, but the aerodrome was not, after all, considered to be suitable. British Continental are sharing the cost of the work involved with the local authorities.

All new air services, of course, are in the nature of an experiment, but there appears to be every hope that the traffic between Lille and London will be worthy of the effort. The aerodrome, which is only fifteen minutes by car from the centre of the city, serves a concentrated manufacturing district.

Meanwhile, the Ostend and Le Zoute service continues to attract more traffic. During the week-end period the machines are filled, and certain services are now being duplicated, or even triplicated. Mid-week bookings, of course, are not too good on such an essentially holiday service.

During the past few months, incidentally, the reserve D.H. "Dragon," has been fitted with a P.B. automatic pilot, and the pilots report more than favourably on its performance. One of these instruments, it will be remembered, has been fitted to the "Puss Moth" used for the ordnance survey work in this country.

Across the South Atlantic

ON Sunday D.L.H. celebrated their hundredth regular trans-Atlantic flight with the mails. Some four million letters have been carried and about 850,000 miles have been flown on the route, which is covered in three and a half days with Junkers Ju.52s, Heinkel He.70s, and Dornier "Wals," assisted by two catapult ships stationed off the West African and the South American coasts. The D.L.H. claim that every flight has been carried through according to schedule.

The *Graf Zeppelin* will leave Friedrichshafen on Wednesday, October 23, instead of October 21, and a further departure will be made on November 6 from Germany with a return from Rio de Janeiro on December 4. Letter mail will be carried again on these services, and between November 10 and December 4 the airship will fly between Pernambuco and Bathurst with the mail while the flying boat supply ships, *Schwabenland* and *Westfalen*, are being overhauled. It will be remembered that the airship does not now carry mail in the ordinary way.

It is not now expected that the L.Z.129 will be flying in service before the spring of next year.

Hillman's Expand Further

IT would seem, from the announcement made last week, that Hillman's Airways are likely to become an "air power" in Northern Europe. Plans are now in preparation for a daily service in co-operation with United Airways—and, consequently, of the Whitehall Securities Corporation—between London, Amsterdam and Berlin. No further information is at present available, but when this service opens the company's machines will link the capitals of England, France, Belgium, Holland, Northern Ireland, and Germany.

Meanwhile negotiations have been in progress between Northern and Scottish Airways, United Airways and the Norwegian D.N.L. Company with the idea of planning an air line between Scotland and Norway. Det Norske Luftfartsselskap is controlled by two big shipping companies. Mr. George Nicholson and Mr. W. D. Roberts have, it is understood, recently returned from Oslo and the former is to make a survey of Scotland for flying boat bases.

Tata's New "Merlin"

THE first Miles "Merlin" for Tata was recently assembled and flown at Yeroda aerodrome, Poona. This "Merlin" is the fastest commercial machine in India to-day, and can carry either a quarter of a ton of freight or four passengers. The addition of this machine to Tata's fleet means that while two will be always out on the route with air mail, two will be held in reserve for special work or to cope with emergencies.

For three years a weekly service each way between Madras and Karachi, and latterly a bi-weekly service, has been maintained, and only on one occasion has trouble been experienced. Since the inauguration of the service the Government of India has spent nothing on the route. Shortly, however, one of the needed developments will take place. It is the intention of the Government to establish wireless stations at Madras, Hyderabad, Bombay, and Ahmedabad. Simultaneously, Tata's will fit their machines with wireless.

Empire Traffic Increase

STATISTICS show some remarkable increases in the passenger and mail traffic carried by Imperial Airways.

During the first three months of this year the figure for passenger ton-miles was 564,835, as compared with 367,038 for a similar period in 1934. For freight ton-miles the figure was 127,213. This compared with 87,811 in 1934. The ton-mile figure for mails increased from 135,056 to 269,425; while the passenger mile total reached 5,884,234, as compared with 3,830,609 for 1934.

Still more recent statistics, which refer to May this year, show an increase of 70 per cent.—as compared with a similar period in 1934—in the number of Empire air passengers passing through Croydon. On the India and Eastern route, during May, the passenger traffic growth was in the neighbourhood of 100 per cent., as compared with 1934, while mail loads increased by approximately 60 per cent.

During the most recent period of twelve months for which figures are available—from March 31, 1934, to April 1, 1935—Imperial Airways' machines operating on the European and Empire routes flew 2,432,864 miles and carried 55,559 passengers and over 2,000,000 lb. of mails and freight.

"SELLING" AIR TRAVEL

Concerning the Real Importance of Airport Visitors : Some Lightly-worded but Serious Criticisms : An Example from the Continent

VISITORS to any big airport bring revenue to the owners, to the restaurant people, to the joy-ride firms, and, indirectly, to the air transport companies. Properly handled they depart in an air-minded state, and with their "baptism" behind them, to spread enthusiasm amongst their friends. To any airport owner, in fact, who is trying to "sell flying" the ordinary visitor is a valuable asset.

They know all about this side of the business on the Continent and at a few privately owned air ports in this country. Take Schiphol, airport of Amsterdam, for example. The place is a well-organised commercial aerodrome, but the ordinary visitor is by no means cold-shouldered. They patted themselves on the back there the other day because 40,640 paying visitors came along between August 1 and 11, and 1,139 of them made flights. When their 200,000th visitor for the year turned up they presented him with a free return ticket between Amsterdam and Brussels.

Neither do they sit at the receipt for custom and wait for visitors to come along. All institutions, schools, colleges, and the like are circularised, offering reduced charges for road transport, refreshment, and flying facilities. The shrewd Dutchman, in fact, knows that to-day's school children are to-morrow's regular air travellers.

Things are hardly the same at London's Government-owned airport, Croydon. Let a scoutmaster write and say that he wants to bring his troop along and he will receive a cold official letter, pointing out that absolutely no reduction in the entrance fee can be given. Visitors, in fact, obtain the impression that they are regarded as unmitigated nuisances.

When entering the gates a visitor is confronted with a notice telling him to proceed to the roof and there to await a guide after taking his ticket. The question is—which roof? There is no notice to inform him about it, and finally he comes across an obscure stairway behind a brick wall, and camouflaged with meteorological notices.

A Romford Venture

UNDER the title of Hillman and Cross a firm has been started at Romford aerodrome by Mr. E. A. J. Hillman and Mr. J. Cross. All forms of overhaul and repair work to aircraft and engines will be undertaken.

Sixteen Giants

THE Central Aerohydrodynamic Institute has completed the plans for the sixteen new aeroplanes which are to replace the wrecked *Maxim Gorki*.

The new machines, while preserving the general scheme of the all-metal *Maxim Gorki*, will have six 1,200 h.p. motors instead of eight 850 h.p. motors of the ill-fated giant. The main characteristics of the new machines are as follows: Wing span, 207 ft.; height, 36 ft.; length, 112 ft. The maximum speed will be about 170 m.p.h.—an improvement on that of the prototype explained by the removal of the central engines—and there will be accommodation for sixty passengers. The machines will be fitted with automatic pilots.

Anglo-Netherlands Occasions

SINCE the dual charter by Lord Beaverbrook of a K.L.M. Douglas and an Olley "Rapide" for a tour of Europe, another interesting Anglo-Dutch event has come to light.

Early in September three D.H. "Rapides," with Dutch registration letters, will be flown to the Netherlands Indies. One of these machines, piloted by Mr. Koppen, the well-known Dutch pilot, will have an all-Dutch crew, but the crews of the two others will be mixed English and Dutch which, incidentally, throws a light on normal Dutch linguistic attainments. One aeroplane has Capt. G. M. Cox as chief pilot and Mynheer P. G. Tideman as first officer, whilst the mechanic is P. G. L. Hegener, a Dutchman. The other "Rapide" will be commanded by Capt. Edgar Fulford, the first officer being Mynheer Johannes Vonk, and the mechanic Mr. S. J. Cope.

The crews of the Douglas and "Rapide" on the Beaverbrook tour were, incidentally, Messrs. Scholte, Dunk, Pestman and Osterhuis and Messrs. Ledlie and Bryers respectively.

If there was a little more of this sort of thing in the world there would be a lot less war talk.

Of all possible waiting-rooms the main hall roof can sometimes be the least pleasant, exposed as it is to sweltering heat, torrential rain, sleet, snow, and icy wind. When the official guide, a very pleasant man, arrives, he does his best, but he is single-handed, and the wait may be long. If he is not available any traffic porter deputises for him.

Thus it is with the aristocratic visitor; for the more plebeian there is a public enclosure. People who pay to enter find themselves in a paradise of waste land surrounded by spiked iron railings through which they may peer and grit their teeth upon the dust raised by departing machines. There are a few benches, half-a-dozen at most, and in no modern Zoo would apes be thus accommodated, for the R.S.P.C.A. would not allow it.

Any literature that is sold or distributed is an important feature. There is no free literature at Croydon, but there is, however, a tastefully produced official guide book sold to the public at 2d. On the cover are pictures of obsolete aeroplanes, and within there is an inaccurate and, one fears, a dreary account of the airport. This was published in 1931 and is as useful as a mid-Victorian guide to Euston Station would be to a modern traveller. Even the advertisements are obsolete. One is for a pleasure-flying firm which has gone out of business, and, for another, the information concerning the fleet, prices and activities, is quite wrong.

When approached about this amazing document the authorities remark that there are some twenty thousand copies on hand and that before anything can be done these must be sold to a defenceless public.

Over the entrance to the main hall there is a symbol which resembles a winged tomato with the letters L.T.A. A visitor, leaving gladly after the usual marooning, summed up his impressions when he pointed to the letters and enquired of an attendant: "What does it mean? Loathsome treatment for all?"

To the Scillies

NEGOTIATIONS with the Duchy of Cornwall authorities have been completed by Sir Alan Cobham, and it is understood that landing rights have been secured for several years and that a regular service between the Isles of Scilly and the Cornish mainland will be inaugurated in about a month's time. Olley Air Services will cover the route, and Capt. Olley himself paid a visit to St. Mary's Island recently to inspect the work of laying out the aerodrome. This will be partially on the golf course and partially on adjoining land.

Penzance will, in the first instance, be the mainland aerodrome for the service, but it is possible that the service may be extended in time to Plymouth.

Rollasons at Hanworth

SINCE August 1 Rollason Aircraft Services, Ltd., have been installed at Hanworth aerodrome with the sole repair rights for aircraft and engines over and above those for twenty-five hour overhauls, and, of course, for machines manufactured by the various tenant companies. A complete engine test plant is available.

Mr. C. Sullens remains in charge of the workshops, where he has been almost since National Flying Services originally opened the aerodrome, and the existing staff has also been taken over. There is no landing fee for private owners at Hanworth, and some thirty house their machines there, so Rollasons should be in a good position.

The firm's "Puss Moth," which is, incidentally, of considerable value for making fast visiting rounds and for making "lightning" examinations of damaged machines in distant parts of the country, was given an unusual job last week. The Rollason "crash wagon," while on its way down the North Road, collided, in artificially produced Q.B.I. conditions, with a car whose driver had lost himself in the smoke drifting across the road. Mr. J. E. Willson, the Rollason test pilot, promptly flew up to Huntingdon and, after landing in a field near the road, brought the lorry driver and his small daughter, who had been slightly injured, back to London.

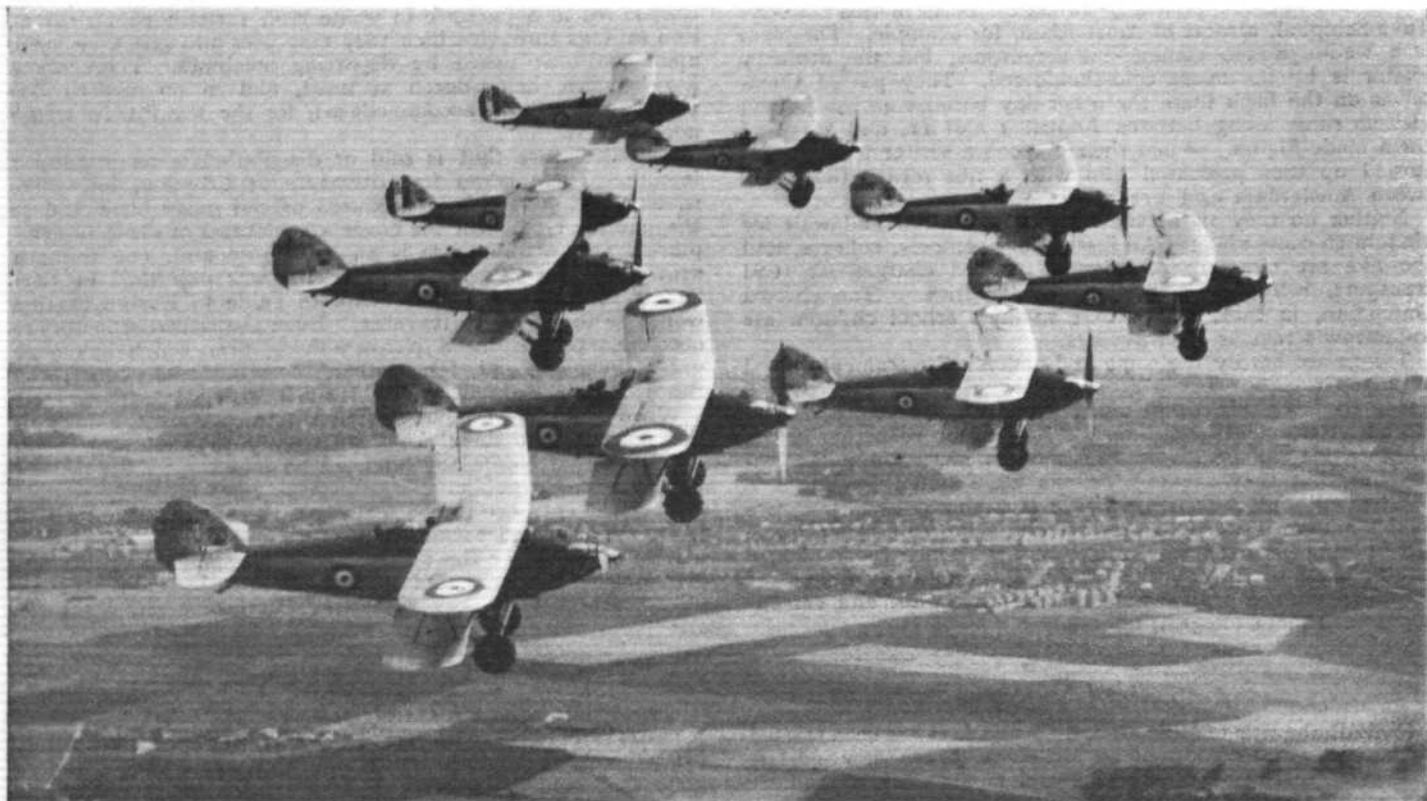
Rollasons are expecting their demonstration D.H. "Hornet Moth" within the next fortnight.

THE ROYAL AIR FORCE

SERVICE NOTES AND NEWS



AIR MINISTRY ANNOUNCEMENTS



HOLDERS OF THE ESHER TROPHY: Good formation flying by No. 605 (County of Warwick) (Bomber) Squadron, A.A.F.

AIR AIDE-DE-CAMP TO THE KING

The Air Ministry announces the appointment of Group Captain Robert Leckie, D.S.O., D.S.C., D.F.C., as additional Air Aide-de-Camp to His Majesty the King in succession to Group Captain Thomas Edward Barham Howe, A.F.C., who has been appointed as Air Attaché to His Majesty's Embassy at Washington.

R.A.F. SUB-DEPOT, ORPINGTON

A sub-depot of the R.A.F. Depot, Uxbridge, has just been formed at Orpington, Kent, and it will begin the training of recruits on September 2, 1935. The sub-depot will continue for approximately six months and will then be disbanded. The sub-depot will be organised as a self-contained unit to train one squadron of recruits and will be under the Commandant, R.A.F. Depot, for general supervision and major administration.

FLYING BOAT SQUADRONS

No. 202 (Flying Boat) Squadron at Malta, which has just been equipped with four "Scapa" boats in place of its former HIF float-planes, is engaged on a cruise in the eastern Mediterranean.

No. 203 (F.B.) Squadron, which recently flew from Basra to Pembroke Dock in three "Rangoons," has been re-equipped with "Singaporeans." It is due to fly back to Basra in them in September, and its orders are to alight only at British ports. The first stage is to be from Mount Batten to Gibraltar, a distance of 1,074 miles. The succeeding stages are:—Gibraltar-Malta, 985 miles; Malta-Aboukir, 920 miles; and Aboukir-Basra, 1,070 miles. If possible the squadron will leave Mount Batten on September 3, and with favourable weather should reach Basra about a week later.

FOREIGN OFFICER WITH THE R.A.F.

Capt. Nepukus, of the Siamese Military Air Service, has been attached to No. 16 (A.C.) Squadron from August 20, 1935.

No. 4 (ARMY CO-OPERATION) SQUADRON

No. 4 (Army Co-operation) Squadron will be located at Ford Aerodrome from August 23, 1935, to September 16, 1935, inclusive.

AUSTRALIAN AIRCRAFT FACTORY

It is reported from Canberra that a large Government aircraft factory is to be established at Maribyrnong, near Melbourne, to manufacture aircraft for the Royal Australian Air Force.

There is also talk of manufacturing aero engines in Australia later on.

EXTENSION OF SERVICE

The service of selected flight lieutenants will be extended by periods to be determined in each case up to a maximum extension to age fifty. Selections of officers will be made periodically by the Air Council and applications from individual officers are not required.

MEDICAL EXAMINATIONS

In order to provide facilities for the medical examination, for the renewal of their licences, of civilian holders of class "B" civil pilots' licences who may be living at a distance from London, it has been decided that, in future, such medical examinations may be carried out at certain R.A.F. stations. The examination is to be carried out by a medical officer holding a commission in the regular Air Force, Special Reserve, or Auxiliary Air Force. The following is the list of stations where "B" licence renewal examinations will be carried out:

Abingdon, Biggin Hill, Bircham Newton, Boscombe Down, Bicester, Duxford, Hawkinge, Hornchurch, Hendon, Kenley, Mildenhall, Northolt, North Weald, Wittering, Worthy Down, Upper Heyford, Tangmere, Calshot, Gosport, Leuchars, Catterick, Digby, Farnborough, Grantham, Henlow, Martlesham, Manston, Nether-avon, Old Sarum, Sealand.

NEW HONG KONG AERODROME

Reuter reports from Hong Kong that it is expected that the construction will begin at an early date of a large British aerodrome at Fanling, on ground in the vicinity of the oldest and best-known golf course in the far east, that of the Royal Hong Kong Golf Club. Fanling is situated in the leased territory (British) on the mainland of China, about an hour's journey by ferry and train from Hong Kong.

BOY ENTRANTS WANTED

The Air Ministry announces that vacancies will occur next month for over 300 boy entrants, Royal Air Force. Entry is open to boys who were between 15½ and 17½ on August 1 last, and who have attended a secondary, junior technical, or central school up to the age of 15½, or have attained an equivalent educational standard. Accepted boys will be given twelve to sixteen months' training as wireless operators, armourers, and photographers. Intending applicants should write at once for details of the scheme and application forms to the Air Ministry (Boy Entrants Department), Adastral House, Kingsway, London, W.C.2.

Candidates will be required to obtain nominations from a recognised authority, which must reach the Air Ministry by September 15.

AIRCRAFT APPRENTICES

At the recent competitive examination for the entry of aircraft apprentices into the Royal Air Force, of which the results are announced, 1,836 candidates sat for the competitive examination, and fifty-five "Service" candidates were also examined. The number of candidates examined (1,891) was the largest ever to present themselves for this examination, and the number declared successful (1,235) also constitutes a record. The successful candidates are all being offered engagement in the Service, subject to their passing the medical examination. The next examination for aircraft apprentices will take place on November 5, 1935, and there will again be a very large number of vacancies. Details of the examination and conditions of service can be obtained by application to the Secretary (Apprentices Department), Air Ministry, Victory House, Kingsway, W.C.2.

ROYAL AIR FORCE GAZETTE

London Gazette, August 20, 1935

General Duties Branch

Group Capt. R. Leckie, D.S.O., D.S.C., D.F.C., is appointed an additional Air Aide-de-Camp to the King (August 21) (vice Group Capt. T. E. B. Howe, A.F.C.); Pilot Officer on probation W. E. Legard is confirmed in rank (July 18); F/O. J. B. T. Whitehead is promoted to the rank of Flight Lieutenant (August 3).

The following Pilot Officers are promoted to the rank of Flying Officer:—G. N. Amison (April 23); H. M. Cox (July 6).

Group Capt. J. H. A. Landon, D.S.O., O.B.E., is placed on the retired list at his own request (August 5). The short service commission of Acting Pilot Officer on probation P. C. R. O'Hara is terminated on cessation of duty (August 20).

Stores Branch

Flying Officer on probation H. E. Bethell is confirmed in rank (July 20).

Commissioned Signals Officers

Flying Officer on probation J. R. Welsh, A.F.M., is confirmed in rank (July 20).

Commissioned Armament Officers

Flying Officer on probation R. B. Cleaver is confirmed in rank (July 20).

Memorandum

Capt. E. P. Manson, M.C. (Middlesex Regiment), is permitted to

ROYAL AIR FORCE INTELLIGENCE

Appointments.—The following appointments in the Royal Air Force are notified:—

General Duties Branch

Group Captains.—C. O. F. Modin, D.S.C., to H.Q., Western Area, Andover; on appointment as Senior Air Staff Officer vice Air Comdre. J. C. Quinnell, D.F.C., 12.8.35. W. V. Strugnell, M.C., to R.A.F. Station, Manston; to command vice Group Capt. E. R. Manning, M.C., 10.8.35.

Squadron Leader.—G. S. Oddie, D.F.C., A.F.C., to H.Q., Inland Area, Stanmore; for Air Staff duties vice Sqn. Ldr. R. S. Lucy, A.F.C., 8.8.35.

Flight Lieutenants.—D. N. Roberts, to No. 4 Flying Training School, Abu Sueir, Egypt, 24.7.35. J. E. M. Bainbridge, to No. 230 (Flying Boat) Squadron, Pembroke Dock, 12.8.35. L. Dalton-Morris, to Electrical and Wireless School, Cranwell, 16.8.35.

Flying Officers.—R. A. R. Rae, to No. 142 (Bomber) Squadron, Andover, 10.8.35. J. A. Tester, to Cambridge University Air Squadron; for course at Cambridge University, 15.7.35.

CIVIL AVIATION GROUND ENGINEERS' LICENCES

Examinations for serving Officers and Airmen will be held as follows: (i) London, weekly on each Tuesday in October, November and December, 1935. (ii) Croydon, on the second Friday in October, November and December, 1935. (iii) Manchester, on the first Friday in December, 1935. (iv) Bristol, on the first Friday in October, 1935. (v) Glasgow, on the first Thursday in November, 1935.

PROLONGATIONS OF ENGAGEMENTS

In addition to the measures already announced, it has been decided to invite non-commissioned officers mustered in group V trades who will have completed twelve years' service by March 31, 1937, to prolong their engagements to sixteen years' regular service. On discharge after satisfactory completion of sixteen years' service they will receive a gratuity of £50, in lieu of ordinary service gratuity. Whilst prolongation in group V will normally be confined to non-commissioned officers, applications from leading air-craftmen who are specially recommended will also be considered.

FLYING ACCIDENT

The Air Ministry regrets to announce that Sergt. Gordon Edward Mould is missing and believed to have been drowned as the result of an accident which occurred in Christchurch Bay, Hampshire, on August 23, 1935, to a "Nimrod" aircraft of No. 801 (Fleet Fighter) Squadron. Sergt. Mould was the pilot and sole occupant of the aircraft.

R.A.F. RIFLE ASSOCIATION

The undermentioned officers, airmen and aircraft apprentices were successful in qualifying to shoot in His Majesty the King's Prize at Bisley on Saturday, July 20, and gained the following places in the hundred competitors shooting:—

5th place	Sqn. Ldr. C. S. Richardson, M.B.E.	Boscombe Down.
14th	" A.A. D. Matthews	Halton.
23rd	" F/O. G. E. Watt	Upper Heyford.
39th	" Sqn. Ldr. T. S. Ivens	Eastchurch.
48th	" Flt. Sgt. J. W. Whiting	"
58th	" L.A./A. S. Stephens	Halton.
77th	" Flt. Sgt. T. Cresswell	Eastchurch.

retain the rank of Squadron Leader on retirement from the Army (April 4).

ROYAL AIR FORCE RESERVE

Reserve of Air Force Officers

General Duties Branch

E. C. N. Jeffries is granted a commission as Flying Officer in class A (July 31).

The following are granted commissions as Flying Officers in class C:—E. D. Crundall, D.F.C. (July 16); E. J. Dinutt, S. F. Woods (July 19).

The following Pilot Officers on probation are confirmed in rank:—H. F. Bromwich, H. N. Edge, T. H. Hazlerigg, C. F. Kendall, C. L. Milligan, N. B. Mole (July 9); J. A. Mortimer (August 7).

F/O. P. G. Philcox is transferred from class AA (ii) to class C (March 3); F/O. R. G. Hennessy, D.S.O., M.C. (Major, Border Regiment, R.A.R.O.), relinquishes his commission on completion of service (July 14).

Medical Branch

L. V. McNabb, M.B., B.S., is granted a commission as Flying Officer in class DD (July 24).

SPECIAL RESERVE

General Duties Branch

P/O. J. H. Smith is promoted to the rank of Flying Officer (April 18).

Stores Branch

Flight Lieutenants.—O. D. Allerton, to Air Ministry, Dept. of A.M.S.O. (D. of E.), 18.8.35. B. W. Hemsley, M.B.E., to H.M.S. *Glorious*, 18.8.35.

Accountant Branch

Flight Lieutenant.—R. S. Sweet, to R.A.F. Station, Duxford, 16.8.35.

Flying Officer.—H. A. Frost, to No. 13 (Army Co-operation) Squadron, Old Sarum, 16.8.35.

Medical Branch

Wing Commander.—J. T. T. Forbes, to Central Flying School, Wittering; for duty as Medical Officer, 10.8.35.

Squadron Leader.—W. E. Barnes, to Princess Mary's R.A.F. Hospital, Halton; for duty as Medical Officer, 22.8.35.

Flight Lieutenant.—N. I. Smith, to No. 2 Flying Training School, Digby, 7.8.35.

HERE AND THERE

Changed Plans

MR. T. CAMPBELL BLACK'S first record flight in the D.H. "Comet" will not now be to Cape Town. About the end of next week he is going to take off either from Oranmore, Galway, or Baldonnel, Dublin, for Harbour Grace, Newfoundland. He will fly straight back again. The distance from Baldonnel is about 2,160 miles, which is well within the range of the "Comet." This flight will preclude his participation in the King's Cup race, although that may also be attempted if the weather delays the start of the Canada flight. Another doubtful starter for the King's Cup, incidentally, is the D.H.90 entered by Capt. de Havilland.

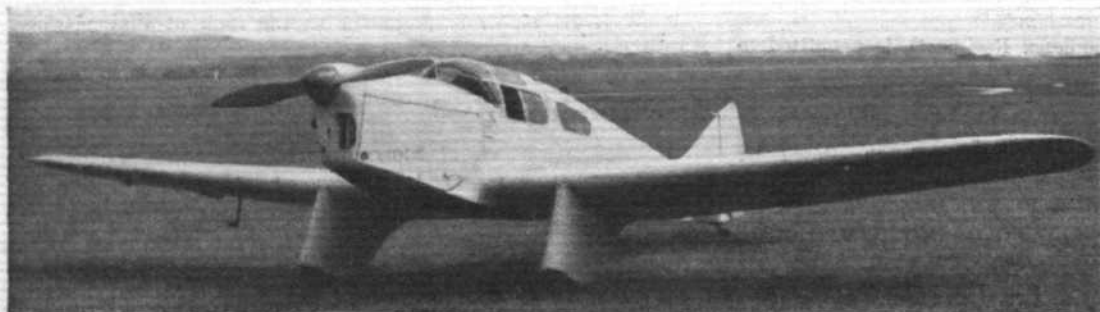
Death of Flt.-Lt. Gillman

WE regret to have to record the death at the National Hospital, London, of Flt. Lt. L. E. M. Gillman. Born in India in 1895, Flt. Lt. Gillman joined the R.N.A.S. in 1916, and when the R.A.F. was formed he was appointed to a permanent commission with the rank of Flying Officer. In 1917 he was injured in a crash.

After the war Flt. Lt. Gillman made a special study of navigation, and in 1927 he accompanied Flt. Lt. C. R. Carr as second pilot and navigator on the attempt on the world's long-distance record flight. The machine had to come down in the Persian Gulf, and Flt. Lt. Gillman was injured. In 1931 he had to jump by parachute from an aeroplane and was again hurt. He never recovered completely from his various injuries. To Mrs. Rachel Gillman and Mr. H. R. Gillman, Secretary of the S.B.A.C., we offer our sincere sympathy in their loss.

King's Cup News

MILES "Hawks" represent such a large proportion of the total entry in the King's Cup Race that it is interesting to see in what way each machine differs. Nos. 22, 32 and 33 (see list of entries in *Flight* last week) are standard "Trainers," No. 22 having had the coupé top removed; the front cockpits have been faired in and smaller windscreen and stub exhausts fitted. The "Hawk M.5," No. 9, is a standard two-seater with smaller wings, giving an area of 137 sq. ft.; the front cockpit is faired in and a high-compression "Gipsy Major" engine fitted. No. 5 is the "Speed Six" which Sir Charles Rose flew last year, and No. 6 is similar, except that it has a high-compression "Gipsy Six" engine. Nos. 28 and 29 are standard "Hawk Majors." No. 23 is a standard de Luxe "Hawk Major" but with a "Cirrus Major" engine, and, as regards size, is identical with the "Trainers." No. 24 is a standard "Hawk Major," but with a smaller fuselage and a "Cirrus Major" engine. The two "Falcons," Nos. 15 and 16, are standard "Gipsy Six" models, with the exception that No. 16 has only one seat in the front, while No. 15 has side-by-side front seating with dual control. The full list of entries was published last week on page 204d.



(Right) The Miles "Hawk M.5," which, entered by Mr. G. A. Hebden, will be flown by Mr. F. G. Miles. As described above, this machine is a standard two-seater, but has a reduced wing area, faired-in front cockpit and high-compression "Gipsy Six" engine.

Boulton Paul Move Inland

AN agreement has been sealed between the Wolverhampton Council and Boulton Paul, Ltd., for the erection of an aircraft factory covering an area of 240,000 sq. ft. at Barnhurst, on the outskirts of Wolverhampton. Work is ready to begin, and the contractors only await the "All clear" from the Air Ministry.

Production will commence in six to nine months, and a wind tunnel is included in the scheme.

Aero Engines' Progress

MUCH work has been done in clearing up the factory recently taken over by Aero Engines, Ltd., at Kingswood, Bristol. The small 17 h.p. Douglas engine is in production, and shipments are shortly being made abroad. The two "Monarch" engines for which the company now holds the rights, the G.A.L. V/4 and V/6, will also be manufactured at Bristol in future. Work is being started on the air-cooled range for which the licence was obtained from Hispano-Suiza, and after that it is expected that some of the larger liquid-cooled Hispano-Suiza engines will be brought out.

The Lowe-Wylde Fund

BY last week-end the Lowe-Wylde Memorial Fund had reached a total in the region of £450. The latest list of donations is as follows:—

	£	s.	d.
J. A. H. Parker	...	...	...
Frank B. Halford	...	...	...
Major Gerard Petit	...	...	...
Sqn. Ldr. C. A. Ridley	...	...	...
John Grierson	...	...	...
D. L. Hollis Williams	...	...	...
H. G. Herrington	...	...	...
H. L. Johnson	...	...	...
Flt. Lt. G. N. P. Stringer	...	...	...
Sir Allott Verdon-Roe	...	...	...
	10	0	0
	5	5	0
	3	3	0
	3	3	0
	3	0	0
	2	2	0
	1	1	0
	1	1	0
	1	1	0
	1	0	0

Donations should be sent to Mr. E. C. Gordon England at the London Air Park, Feltham, Middlesex.

NEW COMPANIES

BRITISH MARINE AIRCRAFT, LTD., was registered as a "private" company on August 14, with a nominal capital of £100 in 5s. shares. The objects are to carry on the business of manufacturers of and dealers in flying boats and aircraft of all kinds, and component parts, etc. First directors not named. Solicitors: Clifford-Turner and Co., 11, Old Jewry, London, E.C.2.

IMPERIAL AIRWAYS (CONTINENTAL) LTD. Private company. Registered August 21. Capital £500,000 in £1 shares. Objects: To acquire the goodwill and assets of the European services of Imperial Airways, Ltd., to establish and maintain air transport and ancillary services within an area bounded on the East by the 20th degree of longitude east of Greenwich, on the south by the north coast of the Mediterranean and on the west and north by the coast of Europe, including the U.K. and the Irish Free State. The directors are: Rt. Hon. Sir Eric Geddes, Sir John G. Beharrell, Irvine C. Geddes, Hon. Esmond C. Harmsworth, Sir Samuel Instone, Sir Saml. H. Lever, Sir Walter F. Nicholson, Marshal of the R.A.F. Sir John Matland Salmund, Hubert Scott-Paine, G. E. Woods Humphery. Secretary: G. Temple Meller. Registered office: Airway Terminus, Victoria Station, London, S.W.1.

(Left) This Miles "Falcon," with tandem seating, has been entered for the King's Cup by Viscountess Wakefield, and will be flown by Flt. Lt. "Tommy" Rose.

